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CLINICS.

Clinical Lectures.

CLINICAL LECTURE ON CATALEPSY; TRICHINOSIS; AND THE TREATMENT OF PNEUMONIA BY BLOOD-LETTING, COLD SPONGING, AND THE WET SHEET.

DELIVERED AT BELLEVUE HOSPITAL, NEW YORK.

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GENTLEMEN: I shall introduce, to-day, several cases exemplifying different diseases, calling your attention, in connection with each case, to points of practical interest.

The first case is interesting as illustrative of a very rare form of disease, so rare that many of you will probably never meet with another example. The patient before you has catalepsy. As you see, she is a young woman, and appears to be tranquilly sleeping. Her eyes are closed. She is pallid, but the face is not cyanotic, and gives no appearance of distress. Her respirations are regular, in rhythm, and not accelerated. I now raise both arms so that they are perpendicular to the trunk. You will perceive that they will remain in this situation as long as the patient is in the amphitheatre. They are not kept in this situation by the volition of the patient. They will remain thus raised longer than would be comfortable, or perhaps practicable, by a sustained effort of the will. This is the symptom characteristic of catalepsy. Other parts of the body placed in positions not easily maintained by volition, continue immovable for a considerable period. There is, therefore, a tonic contraction of voluntary muscles, by which they adapt themselves to different positions of the body or of its parts, this tonic contraction persisting independent of volition. The contraction is easily overcome; the positions of the body or of its parts may be readily changed, very little resistance being offered by rigidity of the muscles. As regards this point different cases differ. Aside from the symptom pertaining to the muscles which constitutes the pathognomonic feature of the cataleptic state, the morbid condition is that of hysterical coma. The coma is not complete. The patient can be aroused sufficiently to open the eyes and to protrude the tongue, but she takes no

notice, and cannot be made to speak. She will not voluntarily take food or drink. It is necessary to nourish her by injecting food into the stomach. This is easily done by means of a tube introduced into the œsophagus through the nose, and Davidson's syringe. In order to illustrate the procedure, Dr. Anderton, the House Physician, will now inject into the stomach several ounces of milk. The patient, as you see, manifests some discomfort, but makes no resistance to the operation. This patient is a woman, but the affection is not confined to women. In the last case which came under my observation the patient was a boy, about 20 years of age, in this hospital.

I will now read the history of the case, as far as it has been ascertained, from the hospital records, as follows :—

"Minnie R., æt. 21, U. S., box-maker, admitted May 17, 1881. No history could be obtained from the patient, as she cannot be made to speak. She lies quietly, apparently paying no attention to events around her. Occasionally she moves her head on the pillow, but maintains her body in a state of perfect repose. The limbs remain in any position in which they may be placed, even though an uncomfortable one and difficult to maintain. When the limbs have been made to assume such positions they will support considerable weights for long periods. The limbs offer no resistance to passive motion, but remain fixed and immobile. Sensation is preserved and its existence betrayed by facial contortions, indicative of pain, when the cutaneous surface is pricked. The reflex movements are preserved. Slight irritation of the skin over the abdomen or thorax causes the patient to smile. When asked to protrude her tongue she does so, but quickly retracts it, as though she had committed an unintentional error in putting it out. The electrical excitability of the muscles and the tendon reflexes are well preserved. The temperature is normal, the pulse 78, and the respirations 20 per minute. The urine is reddish, acid, has a specific gravity of 1017, and contains no albumen.

"The patient refuses to eat, and is fed through a soft rubber catheter which is passed through the nose, and through which fluids are pumped into the œsophagus."

You may ask what is the pathology of this remarkable affection. I cannot give a satisfactory answer to this question. The condition of the patient is one which may be induced in some healthy persons who have a certain peculiar susceptibility of the nervous system. Thus induced, it was formerly included among the phenomena which were embraced under the names mesmerism and animal magnetism. The study of these phenomena within late years has been revived, and the term hypnotism is now applied to this voluntarily induced cataleptic state. The use of a new name is not an explanation, and I do not think that the phenomena can be better explained now than nearly half a century ago. The truth is, our present knowledge of the physiology of the nervous system is not sufficiently advanced to serve as the basis of an explanation of these and various other manifestations of perverted neurotic functions. We have no knowledge of the essential nature of the connection of nervous influences with muscular movements, either voluntary or involuntary, and of the tonic contraction of the muscles. We know not the nature of the agency which emanates from the brain, and is transmitted to the muscles in the exertion of the will. We are equally in the dark as regards the process which takes place within the brain whenever there is an act of volition.

Catalepsy is not an affection involving danger to life. This patient will recover. The first indication in the way of treatment relates to alimentation. Food must be introduced into the stomach until it is taken voluntarily. In order to arouse the mental faculties, "firing" may be resorted to. I shall prescribe this measure in this case. It may be employed by an instrument made for that purpose, but a common hammer dipped in boiling water suffices. It should be applied for an instant at different points over the spine and in other situations. The operation may be repeated two or three times daily. Electricity may also be employed with advantage.[1]

The next case is one of interest as a rare disease, and, also, for the reason that it has existed in the nosology for only a quarter of a century. Owing to its infrequency and the recent date of our knowledge respecting it, there is a liability to mistake it for other diseases; hence, the importance of its diagnostic features. The case is one of Trichinosis, Trichiniasis, or the Trichina disease. For a zoological history of the parasite which causes the disease, and a full account of its symptomatology, I refer you to text-books. I will just read the hospital record of the case, and afterward comment on some practical points.

"Peter Y., æt. 27; Germany; upholsterer; admitted April 15, 1881. The patient states that he ate pork, either raw or only partially cooked, several times during the week preceding March 21st, as also on that day and on the three succeeding days. On March 21st, up to which time he had been in perfect health, he was seized with a sense of oppression in the stomach, and with lancinating abdominal pains. He had also vomiting, which continued at irregular intervals for four days, and diarrhœa which persisted, in spite of domestic remedies, for two weeks. During this time he had occasional exacerbations of fever, most marked in the evening and at night. On April 1st his muscles began to be painful, particularly when they were made to contract, and they were tender on pressure. Deglutition became painful, and he suffered from asthenia and general *malaise*. On admission, April 15, 1881, he was found lying upon his left side with his arms and legs in the position of complete flexion. The thighs were strongly adducted. He moved his extremities without pain as long as they remained considerably flexed, but any attempt at extension occasioned great suffering. The abdomen was sensitive to pressure, as were the quadratus lumborum, the deltoid, and many of the muscles of the arm and neck. There was considerable œdema of the eyelids and of the lower limbs. The urine was normal, and no disease of any abdominal or thoracic viscus could be detected. The patient complained of great prostration. Temperature, 103½° F.; pulse, 118; respirations, 24 per minute. Three living trichinæ were found in a small piece of the deltoid muscle by microscopical examination, and many of the muscular fibres were seen to have undergone granular and fatty degeneration.

"*Treatment.*—Bicarbonate of soda, ʒj, was administered every hour, until six doses had been given. Ol. ricini, fl ʒj, was then given, which produced very free catharsis. This treatment was repeated on the two following days. On April 17th the temperature was 101° in the forenoon and 103½° in the afternoon, and the muscular pain was so severe as to require the administration of morphia hypodermically. From April 18th

[1] Firing and electricity were employed, and, in addition to alimentation, constituted the treatment. The patient slowly improved, and in about two weeks was able to leave the hospital.

to April 21st the temperature ranged between 100° and 101¾°. On April 22d the temperature fell to 99¼°, and on the 25th to 98¾°. During this time the muscular pains became less severe, the œdema disappeared, and the appetite returned."

This case was in the service of my colleague, Prof. Janeway, and the patient was convalescent when he came under my observation. He is still confined to the bed, but the muscular pains have ceased, and he is able to bear considerable extension of the affected muscles. He has no fever, and the digestive organs are beginning to resume the exercise of their normal functions.

You will connect the vomiting, diarrhœa, and colic pains with the development of the parasites within the alimentary canal, and their passage through the gastro-intestinal mucous membrane. The fever and the general symptoms therewith associated are attributable to gastro-enteritis. The muscular pains are caused by the presence of the parasites in the affected muscles. The order of succession of these symptomatic events, and their occurrence shortly after pork, raw or imperfectly cooked, has been eaten, are diagnostic points; but the diagnosis is made demonstrative by obtaining a small piece of an affected muscle, and subjecting it to microscopical examination. In order to trace the disease demonstratively to its source, portions of the suspected article of diet should be microscopically examined. This was not practicable in the present instance.

I call your attention to the treatment of this case under the direction of Prof. Janeway. It consisted in the administration, for three consecutive days, of six drachms of the bicarbonate of soda, drachm doses being given hourly, followed by a cathartic of castor oil. This treatment had for its objects the destruction of parasites, and their expulsion from the alimentary canal. It is, of course, not proper to judge concerning the efficiency of treatment by the history of a single case, but it is noteworthy that, under this treatment, this case has progressed favourably, and the patient is now convalescent.[1]

The remainder of this lecture will be devoted to two cases of Pneumonic Fever or Acute Lobar Pneumonitis. In one of these cases bloodletting was employed for a particular object, followed by sponging of the body as an antipyretic measure. The other case was treated antipyretically by means of the wet sheet. It is proper to state that the treatment in these cases was under the direction of Dr. W. B. Anderton, House Physician of the division of this hospital with which I am connected; and that the treatment was directed by him without any instructions or suggestions from me. I shall read the histories, with all the details respecting the temperature at different hours of each day, during the duration of the fever, in order to present as fully as possible the therapeutical indications, and the immediate effects of the treatment. I hope you will not find these details tedious, when you consider the practical importance of the points which are involved.

The two patients are now before you. I will take up first the case treated by means of the wet sheet. The record is as follows:—

"Chas. L., æt. 32; Denmark; labourer; admitted May 16, 1881. The patient has no regular occupation; he has wandered about the streets, being exposed to all kinds of vicissitudes, and often remaining in wet clothes for hours. Four days before his admission he was suddenly seized with a

[1] The patient was discharged well on May 30th.

severe chill, followed, very soon, by fever, pain in the right side, and cough. The next day he was on the street, as usual, though feeling very weak. From that time until his admission he spent the days in the Battery Park, and the nights in a poor lodging house. On his admission the face had a dusky flush and an anxious expression. He complained of cough, pain in the right side, anorexia, and weakness. The axillary temperature was 104°; the pulse was 90, and strong; respirations were 26 per minute. Over the lower and middle lobes of the right lung were dulness on percussion, increased vocal fremitus, pure bronchial respiration, and bronchophony. No râles.

"The expectoration was rusty and adhesive. The heart, liver, and spleen yielded no abnormal physical signs. The urine was normal.

"The wet sheet was applied, and the patient left, uncovered, beneath it whenever the temperature reached 103° F. The sheet was not removed until the temperature of the mouth had been reduced to 102° F.

"Sulphate of quinia, in five grain doses, was administered every four hours, and five grains of carbonate of ammonia every three hours.

"*May 16th.* 5 P. M., temp. 104°; the wet sheet was applied. 7 P. M., temp. 101°; the wet sheet was removed. 9 P. M., temp. 102¼°. 11 P. M., temp. 102¼°.

"*17th.* 2 A. M., temp. 103¼°; the wet sheet was applied. 4 A. M., temp. 102°; the wet sheet was removed. 8 A. M., temp. 101¾°. 10 A. M., temp. 101½°; pulse 90; respiration 30. 12 noon, temp. 101½°. 2 P. M., temp. 102½°. 4 P. M., temp. 103°; the wet sheet was applied. 5 P. M., temp. 103¼°; temp. taken by rectum, the sheet being still applied. 7 P. M., temp. 102½°. 8 P. M., temp. 101½°; the sheet was removed.

"*18th.* 12 P. M., temp. 101½°. 6 A. M., temp. 100¾°. 8 A. M., temp. 101¾°. 10 A. M., temp. 101°; pulse 72; respiration 30.

"Over the middle lobe the bronchial has given place to broncho-vesicular respiration and bronchophony to increased vocal fremitus. Subcrepitant râles are heard. The pneumonia, however, has invaded the upper lobe, and dulness, bronchial breathing, and bronchophony extend upward nearly to its apex. Pleuritic friction sounds are heard over the entire anterior surface of the lung. Bronchial respiration, bronchophony, and crepitant râles are now heard over the whole lower and over the lower portion of the upper lobe.

"*18th.* 12 M., temp. 102½°. 2 P. M., temp. 102½°. 4 P. M., temp. 101°. 8 P. M., temp. 101¾°.

"*19th.* 12 P. M., temp. 102°. 4 A. M., temp. 101½°. 8 A. M., temp. 100¾°; pulse 72; respirations 24. 10 A. M., temp. 100½°.

"The respiration is, now, broncho-vesicular at the right apex anteriorly. Behind the signs are the same as on yesterday.

"12 M., temp. 101¾°. 6 P. M., temp. 101½°.

"*20th.* 8 A. M., temp. 101¼°. 8 A. M., temp. 100°.

"*21st.* A. M., temp. 98½°.

"*22d.* Temperature, A. M., 98½°; P. M., 98½°. The bronchial respiration and bronchophony, over the lower lobe and over the lower portion of the upper lobe, are less marked. Friction sounds and crepitant râles are still heard over both lobes, anteriorly.

"*24th.* Temperature normal. The respiratory murmur, over the affected lobes, is now broncho-vesicular in character, and bronchophony has been replaced by slightly increased vocal resonance. The patient sits up, and his appetite is excellent.

"29*th*. Resolution is complete, all the morbid physical signs due to consolidation having been replaced by the normal ones. Slight dulness still exists over the whole lower lobe, but this is referred to pleuritic thickening."[1]

The employment of the wet sheet as an antipyretic measure in the treatment of pneumonic fever is not a novelty in this hospital. In a lecture published in the number of *Gaillard's Medical Journal* for March, 1881, I reported three cases treated by this measure under the direction of Dr. Moeller, at that time House Physician of the division with which I am connected.[2] The treatment has been resorted to since the publication of that lecture in other hopital cases, and also in a few cases in private practice which have come under my observation. In all the instances thus far observed, the apparent effect of the treatment has been excellent. It remains to ascertain by clinical observation the circumstances, aside from the condition of hyperpyrexia, if there be any, which contra-indicate it. By the facts already observed I am justified in saying that in uncomplicated cases, a patient may remain in the wet sheet, with sprinkling of cold water at short intervals, without risk of harm, and with advantage, until the body-heat is reduced two, three, or more degrees, the period required for the reduction varying from a few to many hours, and that the measure may be safely repeated whenever the hyperpyrexia returns. In the case before us, it is fair to accord a certain amount of therapeutical influence to the quinia and the carbonate of ammonia which entered into the treatment.

Of the second of the two cases before you, the hospital record is as follows:—

"Sophia K., æt. 23; U. S.; domestic; admitted May 9, 1881. On May 5th the patient had a well-marked chill, with vomiting, headache, fever, and pain under the left nipple. She grew weak, lost her appetite, and felt unable to exert herself; but, nevertheless, kept at work until May 9th, when she entered the hospital.

"On admission the cheeks presented a circumscribed flush; the temperature was 102°; the pulse 120, and the respirations 40 per minute. The patient complained of excessive weakness and of pain in the left mammary region, with cough and rusty expectoration. Over the lower lobe of the left side there was increased vocal fremitus, with dulness, bronchial breathing, and bronchophony. No râles. The thoracic and abdominal viscera, with the exception of the lungs, were normal, as was also the urine.

"*Treatment.*—Whiskey, fl℥ss every half hour; ammon. carbonat. grs. v every two hours; morph. sulphat. gr. $\frac{1}{8}$, by mouth, every three hours; infus. digitalis, fl℥ss, by mouth, every three hours.

"*May 9th.* 3.30 P. M. Œdema pulmonalis having been developed, Dr. Anderton performed venesection—removing twelve ounces of blood. This measure speedily relieved the symptoms due to the œdema. The latter became less marked, and the patient's general condition was considerably improved. 4.30 P. M., temp. 103½°; ordered whiskey, ℥ss every hour. 6 P. M., temp. 104°. 7 P. M., temp. 104°. 12 P. M., temp. 103½°.

"10*th*. 10 A. M., temp. 103¼°. The patient suffered from intense dyspnœa, which was effectually combated by the inhalation of oxygen gas.

[1] The patient was discharged on June 3 completely recovered.

[2] For an account of these cases *vide* Medical News and Abstract for May, 1881.

At 12 M., temp. 104°, 2 P. M., temp. 104¼°, and 4 P. M., temp. 104¼°; considerable dyspnœa; gave oxygen. 6 P. M., temp. 103¼°. 8 P. M., temp. 103°. 12 P. M., temp. 103¼°.

"11*th*. 9 A. M., temp. 103°. 12 M., temp. 104¼°. 2 P. M., temp. 104°; great dyspnœa; gave oxygen. Ordered the patient sponged with tepid water, only one extremity being exposed at a time. 4 P. M., temp. 104¾°. 5 P. M., temp. 103°. 7 P. M., temp. 104°. 8 P. M.. temp. 103°. 12 P. M., temp. 103°.

"12*th*. 5.30 A. M., temp. 103½°. 9 A. M., temp. 103¼°. 11 A. M., temp. 103¾°; sponge bath. 12 M., temp. 101¾°. 3 P. M., temp. 104°; sponge bath. 3.45 P. M., temp. 102¼°. 7 P. M., temp. 104°; sponge bath. 8 P. M., temp. 102°.

"13*th*. 1 A. M., temp. 102°. 7 A. M., temp. 101¼°. 9.45 A. M., temp. 101°. 2 P. M., temp. 102°. 5 P. M., temp. 102°; normal alvine evacuation. 7 P. M., temp. 102°. 9 P. M., temp. 101½°.

"14*th*. 8.45 A. M., temp. 99¾°. 11 A. M., temp 99°. The patient's condition is materially improved. On percussion diminished dulness is found; on auscultation broncho-vesicular respiration, increased vocal resonance and *râles redux;* on palpation the vocal fremitus but slightly increased. The whiskey was reduced to fℨss every two hours. 6 P. M., temp. 99¾°; digitalis was discontinued.

"15*th*. 8 P. M., temp. 98¾°. 6 P. M., temp. 99¾°; stopped the carbonate of ammonia; ordered whiskey fℨss t. i. d.

"16*th*. A. M., temp. 98¾°. P. M., 99°. Physical examination now shows only slight dulness. The broncho-vesicular breathing has been replaced by natural vesicular respiration, and the vocal resonance is normal.

"18*th*. A. M., temp. 98¼°. P. M. 98½°. Ordered tr. ferri chloridi, gtt. xx t. i. d.

"19*th*. A. M., temp. 98¼°. The patient is now fully convalescent."[1]

An important event in this case was the occurrence of pulmonary œdema. Occurring in connection with pneumonia, and limited to the lobes not solidified by the pneumonic exudation, it is known as "collateral œdema." The diagnostic evidence of its occurrence is the more or less sudden development of rapid breathing and of cough with serous or sero-sanguinolent expectoration, these symptoms associated with subcrepitant râles over the lobes not affected by the pneumonia. The explanation implied in the term collateral is that the blood in consequence of the obstruction to the circulation in the solidified lobe or lobes, is determined in excess to the lobes not solidified. Were this the sole explanation, however, the so-called collateral œdema in cases of pneumonia and of pleurisy with effusion should be frequent, whereas it is of rare occurrence. Nor is it easy to understand why the œdema should occur suddenly, and when the obstruction has existed for some time as in the case under consideration. A better explanation is that the œdema is due to the same causes which induce it when pneumonia does not exist. The œdema implies pulmonary congestion, and the latter, in the second stage of pneumonia, cannot take place in a solidified lobe for an obvious mechanical reason; hence the congestion and œdema are limited to the lobes which are not solidified. As to the causes of pulmonary œdema I cannot go into their consideration now; but I would remark that my colleague, Dr. Wm. H. Welch, has demonstrated, experimentally, that the proximate cause is

[1] Recovery took place without any untoward symptoms.

weakness of the left ventricle of the heart, associated with either increased or undiminished power of the right ventricle.

Pulmonary œdema existing in a degree to occasion notable embarrassment of respiration is treated most efficiently by bloodletting. Dr. Anderton very judiciously adopted this measure in the case before us. Notable relief followed it, and the dyspnœa which remained was relieved by the inhalation of oxygen gas.

In this case the febrile temperature indicated efficient antipyretic treatment. The wet sheet was not employed lest it might do harm in view of pulmonary œdema having occurred. The latter was perhaps not a contra-indication, but if we must err in medical practice it is generally best to err on the side of caution. Sponging of parts of the body was, however, resorted to, and with the effect of reducing the temperature. Let me here remark that sponging the surface of the body continuously for a long period, will often accomplish all that is to be obtained by the wet sheet or the cold bath. This method of antipyretic treatment has the recommendation of not appearing to be in such violent antagonism to popular traditional notions as the sheet or the bath.

CASE OF TREPHINING FOR ANOMALOUS CONVULSIVE ATTACKS, SUPERVENING SEVERAL MONTHS AFTER INJURY TO THE HEAD.

A Clinical Lecture.

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GENTLEMEN: The subject of my last clinical lecture[1] was a little child who had undergone secondary trephining for abscess following a punctured wound of the vault of the skull, with lodgment of splinters of bone and hair in the brain. The case to which I invite your attention to-day is that of a young man in Bentinck ward who has recently been trephined for fits following an injury in the right temple.

The following is the record abridged from my dresser's (Mr. Thane) notes:—

A ticket-clerk, aged twenty-one years, who as a youth was considered delicate and to have phthisical tendencies, was admitted into the hospital on January 23, 1879.

Six months previously, at 5 A. M., he slipped off a railway-platform, which was greasy with wet, and falling upon the line, about four feet lower than the platform, struck his right temple, it was supposed against the parapet of a dwarf wall. He was stunned by the blow, which was severe, for although the distance through which he fell was not great, he was running quickly at the moment which increased the impetus. How long he continued unconscious is not known—probably not longer than a few minutes. On recovering consciousness he found himself upon the ground. He managed to rise, get upon the platform, and reach the next station, about three-quarters of a mile distant, where he reported his accident to the station-master. A bruise, and a bump of about the size of the last joint of the thumb, were seen on his right temple by his father, a guard, and by others. His head ached greatly, and it felt very confused, but he managed to perform his duty until mid-day, by which time the headache and confusion of mind

[1] See page 330, *ante*.

had become so great that he was compelled to leave work, and he then went to a friend's lodgings near the station, where he sat down in a chair. About 4 P. M. his friend thought he had fallen asleep; he had, however, become deeply unconscious, and could not be roused. He was therefore put to bed, where he remained unconscious of what was happening during twenty-four hours, when he awoke, and was startled to find himself undressed, in his friend's bed, with two doctors examining him.

During about one month he continued deeply soporose, sleeping heavily during several hours, then waking and taking food. He did not, however, feed himself, appearing to be unable to hold the cup or to manage a spoon. He had complete control over his bladder, but it was necessary to place the vessel, for he seemed unable to arrange it or hold it himself. He had also control of the bowels, and he always intimated his wants to those in attendance upon him. Throughout this month he did not leave his bed; he seemed to have become too weak to stand.

In the condition just described he was next taken to his parent's home in a seaport, seventy miles distant. He did not appear to be much exhausted by the journey. The quiet, the surroundings of home, and the fresh sea-breezes appeared to benefit him, and he slowly and gradually recovered, becoming able, at the end of a few weeks, to creep about in the garden. At the end of two months (three months after the accident) he had improved so much that he made an attempt to resume work, but this aggravated the headache, which had never left him, and he could not bear even slight mental strain without becoming confused; so that, after a fortnight, he was obliged to return into the country to his parent's with whom he remained until his admission into this hospital. During all this time he was never free from headache, and latterly he occasionally had what were called slight seizures, twitchings, and very transient unconsciousness.

Five days before being brought to the hospital he was violently convulsed—in twenty-four hours he had fourteen very severe fits; the convulsions were so strong that three men could not restrain him. During the fits and for some time after he seemed to be quite unconscious. In the course of the next day and night he had ten similar fits, and on the third night he was convulsed with little intermission from 10 P. M. till 2 P. M. on the fourth day. He did not bite his tongue nor foam.

When I saw him on the fifth day after his journey of 100 miles, he looked like a convalescent from a severe illness. His face was pale, his pulse weak (100 per minute). The surface of his body was mottled, and it felt cold to the hand. The thermometer in the axilla, however, marked 99° Fahr.

His mind appeared to be unclouded; his memory was good; he gave a coherent account of the accident and his subsequent illness; and when questioned, his answers were always pertinent. His statements (corroborated by his father) were remarkably clear and consistent.

He complained of constant headache and dizziness, of a tightness as if a cord were tied round his forehead, and of a hammering in the back of the head. His visual acuteness was unimpaired, but he said that on reading his sight soon failed. No indications of inflammatory or congestive disorder of optic nerves was discernible. Just behind the right temporal ridge, about one inch above its origin, in the spot where the bump was noticed on the day the accident occurred, was a very limited area, pressure on which caused, he said, a darting sensation through his head. This spot was marked with an ink-dot, and diverting his attention by questions referring to other matters, the smooth end of a pencil was repeatedly made to cross it in different directions, with the result that he always winced and exclaimed, "It darts through my head." No scar was discernible here; the

soft coverings seemed to be quite natural, and no unevenness of the underlying bone could be felt.

At 7.20 P. M. he made a curious noise, so like a snarl or bark that the patients in the neighbouring beds thought a dog had got into the ward. His hands were then noticed to be clenched, and he became violently convulsed. The House-Surgeon, who saw him within a very few minutes of this attack, found him then quiet and apparently quite insensible; his eyes were strongly rolled upwards—the left appeared more elevated than the right. After about five minutes, the masseter muscles were observed to stand in tense relief, and the upper lip was raised, showing the teeth and gums. The teeth were tightly clenched. Then his fingers became flexed, and the arms rigidly stiff through violent contraction of their muscles. The muscles in the nape of the neck were soft, and not contracted. Seven such fits occurred at intervals of about five minutes, ushered in by the strange barking noise. There was then a calm interval of half an hour, followed by another fit, after which consciousness returned. He then asked for a chamber-pot, and micturated. At 11 P. M. he had two more fits. He passed the rest of the night quietly, appearing to sleep.

January 24. At 9 A. M., temperature 98.4°, pulse 84. Calm and sensible. Headache continued. At 3 P. M., two fits.

25*th*. 9 A. M., temperature 97.4°; pulse 86. Slept from eleven o'clock last night till seven this morning. Headache and dizziness unchanged. 9 P. M., temperature 98.4°. At 10 P. M., whilst apparently sleeping, began to mutter, then made a barking noise, and was convulsed six times in half an hour—after which he became conscious. In these fits there was extreme opisthotonus.

26*th*. 9 A. M., temperature 98°, pulse 78. More headache. At 7 P. M. a convulsion lasting five minutes; after which he continued unconscious during half an hour.

27*th*. In the course of the morning, five fits; and in the evening, four fits. Temperature 98.4°; pulse 84.

28*th*. During forenoon, three fits. Temperature 98.6°; pulse 96. Up to this time he had been taking large doses of potassium bromide. At mid-day he was placed under the influence of chloroform, and trephined at the spot in the right temple, where, as already mentioned, pressure always caused a darting pain through the head. In the soft coverings, and in the disk of bone removed, no trace of injury or structural change was discernible. The dura mater also appeared normal. An aspirator-needle was therefore pushed through this to the depth of rather more than an inch, upon which, as nothing escaped through it, the needle was withdrawn. For a few moments, cerebro-spinal fluid spurted in a slender stream through the prick in the dura mater to the distance of nearly a foot. The middle of the scalp-wound was purposely left open. Throughout the operation, and subsequently, strict antiseptic measures were observed.

During the next forty-eight hours no fits occurred. The temperature ranged between 98.4° and 99°, and the pulse averaged 80. He was cheerful but calm, and took fluid nourishment freely. His headache was, he said, much less. Movements of the lower jaw caused much pain, obviously referable to the division of the temporal muscle in the operation.

In the afternoon of the 30th he was allowed to see his father, which appeared to excite him. Later, at 5.30 o'clock, he seemed to become unconscious, and at 6.15 he was slightly convulsed.

February 1. At 1.15 A. M., a slight fit; at 11.45, a slight fit, preceded by unconsciousness of about twenty minutes' duration; and at 9.30 P. M., unconsciousness, which lasted twenty-five minutes, when he came-to without convulsion. Temperature ranged from 98° to 99°.

2d. One slight convulsion. Temperature 98.2°; pulse 84. Potassic iodide gr. x. t. d. now ordered.

3d. At 12.15 P. M., a strong fit.

4th. Had a calm day, followed at 8.40 P. M. by several violent fits.

5th. Between 7 and 9 A. M., six fits.

7th. Temperature 98°; pulse 56, in afternoon intermittent. The dose of iodide of potassium was diminished by half—to gr. v. t. d. 8.30 P. M.: Unconscious during five minutes, after which a severe fit of convulsions, lasting half an hour; followed by four more fits between 3.30 and 4 A. M.

On the 12th he began to take valerianate of zinc in doses of gr. iss, t d. On the 15th this was increased to gr. ij, 4ta quaque hora; then to gr. iij, gr. iv., and finally (on the 24th) to gr. vj, 4ta q. h.

After this date he had no fits until March 6, when he was unconscious during several hours, and was violently convulsed several times.

7th. Allowed to leave his bed and sit in an easy chair. The valerianate of zinc pills were now taken only four times in twenty-four hours. From this time he appeared to improve.

On the 15th he declared himself quite free from headache, and he had not had any fit for eight days.

On the 16th he returned home. At this time he could walk a little; had a good appetite, and was free from headache.

The early symptoms in this most remarkable case are those which are generally thought to indicate severe concussion of the brain. When death has occurred soon after an injury to the head, followed by such symptoms, not infrequently bruisings, slight lacerations, and small hemorrhages in the cortex of the brain have been demonstrated. The severity of the early symptoms, the tardy and imperfect recovery, warranted the belief that such surface-damage of brain had occurred here. The unconsciousness which supervened later on the day of the accident raised the suspicion that a coarse hemorrhage had happened; but the interval—twelve hours—between the accident and this unconsciousness was exceptionally great for it to have been due to pressure through hemorrhage, and the subsequent progress was also inconsistent with such a supposition.

What were the fits which came on six months after the time of the injury?

In those which occurred on the day he was taken into the hospital, the House-Surgeon noticed very marked *trismus;* the masseters became like rigid bars, and the lower jaw was tightly clenched.

In subsequent fits extreme *opisthotonus* occurred. The occiput and rump nearly touched.

Trismus and *opisthotonus* are, as you know, characteristic features in tetanus. Our patient, however, certainly had not tetanus, for during the cramp of the masseters the muscles of the nape were soft and uncontracted, those of the hands and forearms were as violently convulsed as those of the trunk, and in the intervals between these terrible fits none of the muscles were unnaturally rigid; whilst in tetanus, rigidity of the muscles of the nape is early associated with trismus, and it precedes the implication of the muscles of the trunk, the muscles of the hands and forearms usually escape, and between the convulsive paroxysms all the implicated muscles continue stiff through inordinate tonic contraction. It was evident, then, that these convulsive fits were not tetanic: were they epileptic?

The earliest seizures noticed at home, a few days before the first convulsions, were not unlike those of the least severe form of epilepsy—transient unconsciousness ("he seemed to lose himself for a moment") and slight twitchings. That epilepsy sometimes has a traumatic origin cannot be doubted. Its sequence upon

injuries of the head affecting the brain has been observed too frequently to allow this to be regarded as a casual coincidence. We have had in the surgical wards within the last two years two instances of this. In the present case the increase of headache in the right temple, which often, he said, shortly preceded a fit, and the darting pain through the head on touching the site of the bruise at this part, favoured the supposition of a causal relation between the injury and the fits; and this supposition was strengthened by the continuance of headache and dizziness during the intermediate time between the injury and the occurrence of the fits—symptoms suggestive of the existence of some chronic irritative process at the injured spot.

Against the idea that the fits were epileptic was the manner in which they often began: the patient, who a few moments previously had been talking rationally and coherently, appeared to lose the thread of the sentence; he muttered disconnected words, repeating the same word again and again—mostly a word occurring in the last coherent sentence he had himself spoken, or in the last sentence addressed to him. He did not become unconscious instantly, but gradually, and a period varying from a few minutes to half an hour often preceded the convulsions. Occasionally the first convulsions had the aspect of purposive movement. He, on two occasions when I was myself present and saw it, distinctly made a snap at a dresser who happened to be at his bedside, and tried to seize him with his teeth. His tongue was never bitten.

As, however, the fits seemed to differ least from epilepsy, bromide of potassium, so useful in this disorder, was tried in large and frequent doses. It had not any controlling influence; the fits continued with great violence. It was now that recourse was had to trephining. As you have already heard, nothing abnormal was discovered. The high intra-cranial pressure, sufficient to project a spurt of cerebro-spinal fluid to the distance of nearly one foot, is worth notice. The fluid continued to leak during several hours afterwards in quantity enough to wet the boric charpie with which the wound was covered, and the pressure will have been for some time lowered. Had this lessened tension any causal connection with the absence of fits during the next sixty hours or so? On their return, iodide of potassium was next tried in doses of ten grains, diminished one-half when, after a few days, the pulse began to be very weak and to intermit. It was, however, soon apparent that this drug also was without influence over the malady. The similarity of the fits in respect of the occasional purposive character of the initial convulsions, and also in respect of the opisthotonus which sometimes occurs in violent hysterical convulsions, next led to a trial of valerianate of zinc, which was taken at first in doses of one grain and a half, and finally in six-grain doses at short intervals. Under this treatment the fits subsided, which favours the idea of their hysterical nature. In some recently published cases of violent hysterical convulsions in young women, it was related that pressure in the inguinal regions, directed so that it might be supposed to reach the ovaries, quickly arrested the convulsions. As an experiment, compression of the homologous organs, the testes, was tried here during some fits, but without any effect upon them.

Upon the whole the conclusion which has the largest support in the facts of this case is that the fits were hysterical, induced by the shock of the accident in a person whose nervous system was not particularly stable, and that they were not immediately dependent upon a local irritative process set up by the blow on the temple; trephining, therefore, whilst it did not appear to have done any harm, was useless. In the case which I very recently brought before you, you will remember that the symptoms of cerebral disorder were one-sided: this gave them a very different signification to that of the convulsions in the present case, which were not restricted to one side, but implicated both sides equally.

Note.—After the patient's return home, he fell into what was called a "galloping consumption," and died on July 14 following. An examination of the head showed that the trephine-hole in the skull, which had measured eleven millimetres across, had been completely closed by new bone—a result probably referable to the small size of the trephine and the preservation of the pericranium, which was in a normal condition at the time of operation. No trace of the puncture with the aspirating-needle was discernible in the dura mater or brain.

The brain weighed forty-eight ounces; it was well formed and symmetrical. The pia mater, especially that covering the posterior lobes, was congested. No trace of injury could be detected by most careful examination—no scar or depression or mark of former contusion or laceration; the surface of the brain appeared quite normal. The white and gray matter of the hemispheres were firm; the puncta vasculosa rather more conspicuous than usual. Each hemisphere was carefully sliced for traces of previous injury; none whatever were found. The only pathological conditions were four small yellowish nodules. One of these, about the size of a large pin's head, was in the gray matter of the anterior part of the corpus striatum, close to its upper surface; a second, slightly larger, was in the gray matter of one of the convolutions of the left frontal lobe; the two others were one in each cerebellar hemisphere—also in the gray matter, that in the right side being the larger, and about the size of a horse-bean.—*Med. Times and Gazette*, July 23, 1881.

Hospital Notes.

Bellevue Hospital, New York.

(Service of Dr. Austin Flint, Sr.)

(Specially reported for the Medical News and Abstract.)

Transient Mellituria. Cardiac Disease.

Annie M., æt. 66, Ireland, domestic; admitted Dec. 6, 1880. The patient had malarial fever fifteen years ago. After that time she enjoyed good health until two years ago, when she had acute articular rheumatism involving the knees, ankles, and feet. The arthritic disease, having received no treatment, became chronic, and obliged the patient to seek admission to the hospital. On admission (Dec. 6, 1880), the patient had no pulmonary disease. The heart was hypertrophied, the apex being situated in the sixth intercostal space on the *linea mammillaris*, and the impulse being abnormally strong. A loud, musical, systolic murmur was heard at the apex, and was transmitted to the left, around the chest, being plainly perceptible behind, near the angle of the scapula. Another murmur was heard at the base, over the aortic valves, and was transmitted into the carotids. The patient had a good but not an unusually large appetite. She was not emaciated. She did not suffer from thirst. Her vision was not impaired. Her temperature was normal. She had no cutaneous eruptions or abscesses. Her tongue was moist, and her teeth perfectly sound. She micturated at natural intervals, and had no strangury or *ardor urinæ*. The vulva was not excoriated or tender. Her urine was pale, clear, acid in reaction, and its specific gravity was 1029. It contained an abundance of sugar, but neither albumen, casts, nor other abnormal ingredients. No medication was resorted to.

December 10. The urine has been carefully examined every day since the patient's admission and found to contain no sugar until to-day, when it was discovered to contain eight grains to the ounce. Some urine was withdrawn from

the bladder by a catheter to prevent the possibility of deception, and was found to contain the same proportional quantity of sugar.

11*th*. The patient has passed only twenty-one ounces of urine during the last twenty-four hours. Its specific gravity is 1033, and it contains ten grains of sugar to the ounce.

12*th*. Amount of urine, twenty-four ounces; sugar in abundance.

13*th*. Amount of urine, twenty-two ounces; large amount of sugar.

21*st*. The amount of urine has averaged twenty-five ounces since the last note, and has contained about ten grains of sugar to the ounce. The patient's general condition is excellent, and all her bodily functions are naturally performed.

25*th*. No change in the urinary condition.

28*th*. To-day the sugar suddenly disappeared from the urine, and the amount passed was increased to four ounces.

January 19, 1881. Average daily amount of urine is now forty-five ounces, and it contains no sugar.

30*th*. A careful daily urinary analysis has failed to detect any sugar since last note. The average daily amount is now sixty ounces, and its specific gravity 1020.

February 18. The patient has no symptoms or signs of diabetes. Her urine is normal. She experiences no inconvenience from her cardiac disease, and has only slight stiffness in her rheumatic joints. She was to-day discharged.

Eliz. L., æt. 35, U. S., domestic; admitted Dec. 16, 1880. Six years ago the patient had her first attack of acute articular rheumatism which involved almost all her joints and was attended by præcordial pain and by dyspnœa. She has had several similar attacks since that time. Three years since she first noticed œdema of her lower extremities, which has persisted up to the present time. She has had abnormal frequency of micturition, but no diarrhœa, emesis, or headache. Has had a slight cough and scanty muco-sanguinolent expectoration. She has lost flesh, but has had no night-sweats. On admission she complained of dyspnœa, præcordial pain, and œdema of the legs and feet. The heart is hypertrophied, the apex-beat being situated in the fifth intercostal space, an inch to the left of the mammary line, and the impulse being unusually strong. A thrill is communicated to the palpating fingers. An organic mitral regurgitant and an aortic direct murmur are heard. A prediastolic murmur exists at the base. There is slight pleuritic effusion on the right side. The lower extremities are very œdematous. The temperature, pulse, and respiration are normal. There are neither excessive appetite, great thirst, nor other symptoms of diabetes. The urine, which is clear, alkaline, and has a sp. gr. of 1009, contains a trace of albumen and a considerable quantity of sugar. The quantity of urine passed in twenty-four hours is thirty-five ounces.

Treatment.—Infusion of digitalis, f℥ss, every three hours, and a liberal diet of milk and eggs.

December 16. The patient has improved notably since her admission. The œdema and dyspnœa have diminished and the pleuritic effusion decreased. The average daily quantity of urine has been seventy ounces, and it has contained about six grains of sugar to the ounce.

17*th*. The sugar has disappeared. The digitalis was continued.

27*th*. The urine has been normal in quantity and chemical character since last note, and the patient is rapidly gaining strength.

January 10. The patient was discharged in good health, the pleuritic effusion, œdema, melliturıa, and albuminuria having disappeared.

MONTHLY ABSTRACT.

Anatomy and Physiology.

Microscopic Structure of the Cortex Cerebri.

Professor Betz (*Centralblatt für die Med. Wiss.*, 1881, Nos. 11, 12, and 13) has endeavoured, by his histological researches, to verify the statements of Hitzig and Ferrier respecting the localization of functions in the cortex cerebri. In 1874 he pointed out that the "motor zone" contained large cells, to which the name of giant-cells was given, though they have nothing to do with the giant-cells which play so large a part in the modern descriptions of new growths. He says, the cortex cerebri, as is well known, is composed of five layers, as follows: 1, a layer of neuroglia, containing small granular nuclei; 2, in addition to the preceding, there are pyramidal cells of medium size, with the apices directed towards the periphery, and their bases towards the central parts; 3, very large pyramidal cells, which are, however, fewer and scattered; 4, small round or elliptical cells, constituting the "nuclear layer;" 5, special fusiform cells.

This is the typical arrangement, but the various regions show differences. Thus, Meynert has shown that, in the neighbourhood of the calcarine fissure, the third layer is absent, and the structure in this region consists of two nuclear layers separated by a layer of nerve-fibres, on which lie by pairs large pyramidal cells. The hippocampus also is principally composed of the elements of the third layer. The claustrum consists of the elements of the fifth layer; the ascending frontal, and the paracentral lobe, contain "giant-cells" grouped in nests.

He has examined 5000 preparations from brains of all ages, and has come to recognize, in addition to the above, certain other regional peculiarities.

The *ascending frontal convolution* in its upper two-thirds, presents the following characters. At first, just above the fifth layer, there are large cells, single or united by pairs, and at great intervals one from another; higher up, these cells are grouped in threes and fours, and the intervals are less. Higher still, the groups are formed by a large number of cells, not less than four, often six or seven. In the third layer they present an uninterrupted series. In the second, they are scattered as in the fourth. Near the paracentral lobe, this series is again interrupted so as to form groups or nests. Nearer the lobe the cells become larger, until they pass into the condition of the true giant-cells of that region. These latter are never found in the ascending parietal.

The *convolution of the corpus callosum* is composed at its origin, beneath the anterior part of the lamina terminalis, almost exclusively of two layers, the superior and the fifth; while the cells of the latter, instead of being parallel to the base of the convolution, are perpendicular, like the cells of the third layer elsewhere, and they are two or three times larger than the ordinary fusiform cells of the third layer. In the middle of this convolution, the "nuclear layer" (fourth), and the layer of pyramidal cells, reappear. In the posterior third, three new layers occur. The first, lowest, is composed of longitudinal fibres, forming an arch over the upper surface of the corpus callosum. The second layer, gray, is formed of small round cells; the third, equally gray, contains pyramidal cells, and also large fusiform cells. These three layers become more and more important towards the extremity of this convolution, but never involve more than

its inferior and internal portions. Where the convolution of the corpus callosum passes into the hippocampus, the layer of large cells suddenly increases, and goes to form the internal cellular layer of the hippocampus. The nuclear layer, above described, becomes the well-known nuclear layer of the hippocampus; and the layer of white fibres adjacent to the corpus callosum passes to form the reticular white matter of the hippocampus.

The *extremity of the hippocampus*, and the terminal part of the temporal lobe, present the peculiarity that the pyramidal cells of the third layer are found immediately beneath the first, and are arranged in groups like balls of thread, whence they have been named by Betz *cortical glomeruli*.

The *third frontal convolution* is separable into three parts, the most posterior extending from the ascending frontal convolution to the perpendicular branch of the fissure of Sylvius; the middle portion extends from this limit to the beginning of the orbital portion of the convolution; and the third, situated on the under surface of the brain, extends from the extremity of the convolution to the sland of Reil. The first portion contains in the third layer pyramidal cells of larger size than are found elsewhere in the frontal lobe; and in brains of persons of advanced age, there may be giant cells of small size, which pass into the extremity of the ascending frontal. The second portion contains, in the second and third layers, long, slender, pyramidal cells grouped together, and with their processes directed obliquely. The third portion contains chiefly cells on the type of the fifth layer, and of the size of those of the claustrum, arranged, generally, perpendicularly to the transverse section of the cortex; sometimes there are some cells of the third layer, but they are very small.

The *island of Reil* contains numerous small cells, like those of the fifth layer.

The *lingual lobe* possesses eight layers from without inwards: 1, the layer of neuroglia; 2, very small pyramidal cells; 3, nuclei; 4, horizontal fibres; 5, nuclei; 6, horizontal fibres; 7, triangular pyramidal cells; 8, fusiform cells.

The *fusiform lobule* has an analogous structure; but, as it approaches the occipital lobe, the seventh layer disappears, and at the end of the descending gyrus all the layers unite to form a homogeneous mass of nucleated cells, and a little row of fusiform cells.

The external portion of the *occipital lobe* has the second and third layers of pyramidal cells of the ordinary type, and here and there there are cells of large size.

The *angular gyrus* has an analogous structure, but the cells of the third layer are much larger than in the occipital lobe.

The *ascending parietal convolution*, and *superior parietal* and *inferior parietal lobules*, have the ordinary typical structure.

The three *temporal convolutions* are distinguished by the thickness of the fifth layer, and by the presence of small cells in the third.

The *parieto-temporal* and *transverse temporal* convolutions are of the ordinary type.

The *quadrate lobe* has near its upper border, in the third layer and above the fifth, two rows of pyramidal cells.

The *frontal convolutions*, excepting the lowest, already described, have a very thick third layer of large pyramidal cells, which almost obliterates the fourth layer.

The *straight gyrus* is very like the convolution of the corpus callosum.

In the *female*, the third layers in the frontal and parietal lobes are thinner, and the pyramidal cells fewer; while in the occipital lobes, the same layer presents larger and more numerous cells.

In the *embryo*, at seven months, the cortex is composed of only two layers, the first and fourth, and pyramidal cells may be seen only in the hippocampus.

In the *new-born child* the cortex is much the same, but the hippocampus has all its elements as visible as in the adult, and in the paracentral lobe there are some giant-cells, which may be distinguished by their pyramidal form and three prolongations. At the age of *six weeks*, the pyramidal cells of the third layer may be observed in several convolutions.

In *children of eleven to twelve years* the giant-cells have still few prolongations, the apical prolongation is still short and pale, and no basal prolongation has been observed.

In the case of an *idiot* (Motté), the frontal lobe was composed of irregular, slender pyramidal cells, in which it was impossible to distinguish the five layers. The giant-cells of the ascending parietal and paracentral regions were narrow, oblique, and furnished with few prolongations, the basal prolongation being absent. The parietal and occipital lobes had the nuclear layer well developed, while the pyramidal layer was small, thin, and contained chiefly the small pyramidal cells of the second layer. The *hippocampus* had its white substance very well developed; its characteristic cellular layer was small, as was also the nuclear layer.

With respect to the origin of the olfactory nerve, the olfactory tubercle contains a first layer of small pyramidal cells, few in number; a thick layer of nuclei, and large cells in the fifth layer, like those in the convolution of the corpus callosum. There is, in the inferior portion of the tubercle, a bundle of white fibres, coming from the corpus callosum; and the same region contains a gray layer, consisting of oval ganglionic cells, of large size, and furnished with processes, recalling the cells of the cornua of the spinal cord. In the brain of Motté, this gray layer was much better developed than usual. This gray layer may be called the central ganglion of the olfactory tubercle.

These facts afford an anatomical confirmation to the researches of Ferrier. Convolutions are organs separated by sulci, or fissures, in which lie the blood-vessels supplying them. The larger the convolutions, the greater is the development of the particular organ; and the more numerous of the convolutions, the greater is the specialization of function.—*Lond. Med. Record*, July 15, 1881.

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Anatomical Structure of the Mammary Gland.

In the *Verhandl. der Phys. Med. Gesellsch. in Würzburg* (Band xiv., Heft 3 and 4) Prof. KÖLLIKER gives a detailed descriptions of the minute anatomy of the male and female mamma at various ages. In the new-born infant, sex makes very little difference in the structure. At this period there are no terminal gland-vesicles, the ducts are lined with a single layer of cylinder epithelium or with a few layers of pavement cells, and end in club-like extremities. The ducts he finds in all cases irregularly dilated, the dilatations being filled with shed epithelial cells and a white granular material—forming the so-called "witch-milk," which he regards as normal. During the first year, the most noticeable point is the great dilatation of the ducts, giving the organ a cavernous appearance. The ducts are lined, according to the amount of dilatation, either with flattened epithelium or with several layers of round cells; and those which reach into the depth of the organ have now several club-like terminations. Strings of cells, afterwards developing into fat-cells, are also seen in the deeper parts of the gland. The above-mentioned dilatations gradually diminish during the latter half of the first year, till the lumen is normal, but in some cases swelling of the gland goes on, and a true mastitis results, from which, in all probability, follow those cases of imperfect development of the breast in otherwise well-developed women. From the age of one to ten little change takes place beyond the de-

velopment of fat around the organ and the increase of the septa of connective tissue.

From ten to twenty, the male mamma changes but little, although the terminal gland-vesicles may develop here and there on one or both sides. From twenty to thirty, the male mamma reaches its highest development. The ducts divide dichotomously at their extremities, and send off cellular processes which develop into vesicles. The cutaneous papillæ, the smooth muscular fibre, and the sudoriparous glands, are also much developed. From thirty to fifty, regressive changes occur, gradual disappearance of the terminal vesicles from fatty degeneration of the epithelium with contraction of their lumen and a matting of the connective tissue. The ducts also become tortuous and varicose, and, in later life, there is a great enlargement of the sebaceous glands.

In the virgin mamma, there is no division into lobes. The great part of the gland lies underneath the areola and towards the lower segment of the organ. The cutaneous papillæ are not much developed, and the interstitial tissue is almost tendinous in structure. The gland-vesicles are few in number, even at the age of twenty. They are formed by cellular offshoots from the ducts, at first solid, but gradually acquiring a lumen. In pregnancy, this process goes on rapidly and in large extent. Circular and longitudinal smooth muscular fibres are present in considerable quantity; both classes of fibres being tolerably uniform on the nipple, while the circular fibres seem to preponderate in the areola. During menstruation, although the organ sometimes becomes harder and more sensitive, the author discovered no change. Probably the symptoms are caused by a temporary hyperæmia, producing more rapid growth. During pregnancy and lactation, the papillæ on the nipple are broad but not high, those on the areola are long and pointed. The rete Malpighii contains a thick layer of yellowish-brown pigment. From eighteen to twenty-two ducts converge to the depression of the nipple to open between the cutaneous papillæ, each of these ducts being made up of from four to fourteen branches. The connective tissue of the gland is loose and relatively less in quantity. The terminal vesicles are now well developed, forming a well-marked racemose gland. They are best developed in the deeper parts of the gland, the superficial part consisting mainly of excretory ducts and connective tissue. Between the papillæ of the areolar space are found the prominences of Montgomery's glands, especially developed sebaceous glands, about a dozen in number. Regressive changes follow pregnancy and lactation, general relaxation of the breast, the nipple and areola retaining their size, although the pigmentation slightly lessens in degree. The vesicles also lessen in size. The lobules become separated by more connective tissue. Later in life, the whole glandular tissue disappears except the excretory ducts; the fat also atrophies, and we have the pendent breasts of age.—*Lond. Med. Record*, July 15, 1881.

Materia Medica and Therapeutics.

Waldivin.

A short time since, M. TANRET separated a crystalline neutral principle from the fruit of *Simaruba Waldivia* (which should not be confounded with that of *S. Cedron*). Some physiological experiments carried out by M. DUJARDIN-BEAUMETZ (*Comptes Rendus*, tome xcii.) show that this principle, waldivin, is a powerful poison, but slow in its action, death in the case of dogs not occurring until from five to ten hours after injection, even when the dose is many times

that necessary to produce death. In the human subject and in dogs it provokes vomiting when administered by the stomach, but rabbits fall into a profound stupor, which continues until death. In cases of snake-bite and hydrophobia it has failed to prevent a fatal termination, though, when administered to mad dogs in doses of one milligramme daily, it is said to cause an entire suppression of the exacerbations, the animals remaining insensible and dying without convulsions. Waldivin does not appear to exercise any influence in cases of intermittent fever. On the other hand, cedrin, the corresponding principle of *S. Cedron*, is less toxic, but possesses decided febrifuge properties, though the action is slower and less sure than that of quinine. Like waldivin, cedrin exercises no influence in cases of snake-bite; so that, if there be any foundation in the popular reputation in South America of the seeds of *Simaruba Cedron* as a specific against the bites of venomous serpents, it is not due to this principle. Neither substance produces toxic symptoms in frogs, even in large doses.—*London Med. Record*, June 15, 1881.

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Xanthoxylum Naranjillo as a substitute for Jaborandi.

A rutaceous plant, growing wild in the Argentine Republic, where it is called "naranjillo," and which has recently been described as a new species by Griesbach, under the name of Xanthoxylum Naranjillo, has been examined by D. Parodi (*Revista Farmaceutica*, vol. xviii., and *Pharm. Jour.*). His attention was directed to it through its resemblance to pilocarpus jaborandi in its therapeutic properties, which are those of a sialogogue, sudorific, diuretic, and stimulant. He reports that he has separated a substance forming salts with acids, having a decided alkaline reaction, and giving all the reactions characteristic of an alkaloid, which he has named "xanthoxylina." The plant also yielded a hydrocarbon, "xanthoxylene" ($C_{10}H_{16}$), analogous to pilocarpin, a crystalline stearoptene, xanthoxylin, and finally an aromatic essential oil, having an odour between balm and lemon. From the great similarity of this plant to jaborandi, it appears worthy of further experiment in a therapeutic direction.—*London Med. Record*, June 15, 1881.

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Oxidized Oil of Turpentine as a New Antiseptic.

Mr. C. T. Kingzett, in the *Lancet*, June, 1881, p. 971, brings forward the oil of turpentine, through which air has been passed for a prolonged period, as a valuable antiseptic agent, being at the same time much cheaper than oil of eucalyptus and more intensely antiseptic than this drug, besides being free from all the objections that attend the use of this agent. Mr. Lister is making trial of the oxidized oil of turpentine, the result of which the profession will await with interest.—*Lond. Med. Record*, July 15, 1881.

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Naphtha Oil in Affections of the Skin.

Prof. Kaposi read a paper at the Vienna Medical Society (*Wien. Med. Zeit.*, May 10), in which he stated that he had employed this substance (the B naphtha oil, largely used by colour-makers) as an advantageous substitute for tar, being as useful, while not producing the same disagreeable effects as regards colour, smell, or spoiling linen. Hitherto he has used it only externally, but from its rapid absorption and excretion it may be used, probably with good effect, internally. How far this is the case, and to what diseases it is especially applicable, further trial must prove. At present, speaking from seventy-six cases, Kaposi has found it a useful remedy. Thus in scabies a 10 per cent. simple ointment

followed by a compound ointment of 10 parts of naphtha oil, 50 of green soap, and 100 of lard, will effect a cure in two applications. In eczema, as with tar, the exact time of application is difficult to choose; but if this be well chosen, the itching is allayed, and a slow desquamation occurs. In psoriasis a 10 per cent. ointment produces the same effect as a chrysorabin ointment, without the discoloration caused by this. The ointment has also been used with good effect in ichthyosis, seborrhœa, and pityriasis versicolor; but it is of no avail in lupus vulgaris; while a case of lupus erythematosus was advantageously treated. The naphtha oil is easily soluble in alcohol and in oils or fats, but water requires equal parts of alcohol to be added to effect a solution.—*Med. Times and Gazette*, June 4, 1881.

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Pepsine as a Solvent in Albuminous Obstruction of the Bladder.

Dr. HOLLMANN (*Nederl. Weekbl.*, 18, p. 272) reports the case of an old man, aged 80, suffering from retention of urine, in whom the introduction of a catheter failed to procure the desired result. It was found that the bladder contained coagulated albuminoid masses, mixed with blood. A few hours after the injection of about sixteen grains of pepsine dissolved in water, a large amount of a dark, viscid, fetid fluid readily escaped by the catheter.—*London Med. Record*, June 15, 1881.

Medicine.

Changes in the Salivary Glands in Lyssa.

Dr. A. ELSENBERG (*Central. für die Med. Wiss.*, No. 13, 1881) has examined the salivary glands of twelve mad dogs and of two human subjects dying of lyssa. The principal changes in the dog were in the submaxillary and sublingual glands. The former, on section, were smooth, showed their acinous structure clearly, and were of a grayish-red colour. Under the microscope, the interstitial tissue was distinctly infiltrated with small cells with one or more nuclei, like colourless blood-cells. This infiltration was most marked around the medium-sized veins in the hilus of the acinus, diminished at the periphery, and was scarcely present at the hilus of the gland; in some places, the infiltration was of sufficient intensity to form a microscopic abscess. The fixed cells were slightly swollen, but showed no trace of division. The bloodvessels were filled with blood, containing many leucocytes, partly lying by the walls of the vessels, partly irregularly mixed with the coloured corpuscles. The alveolar epithelium, as well as the half-moon cells, were not unchanged. The contents of the secreting cells became, from a transparent mucous mass, at first slightly granular; then the granular mass gradually enlarged, while, at the same time, the circumference of the cell diminished by a third. The nucleus, from being flat, became round, enlarged, and, instead of lying peripherally, passed more to the centre. Such cells coloured readily with picrocarmin or hæmatoxylin; sometimes two nuclei were seen. The half-moon cells swelled up so as to fill two-thirds of the alveoli; at the same time their nuclei proliferated, so that each cell contained three or more times as many nuclei as a normal cell. Besides, there were sometimes in the alveoli round cells like white blood-cells, which had penetrated from the neighbouring interstitial tissue. The same appearances were found in the middle-sized ducts; the small cells, penetrating the walls, pushed up the epithelium, loosened the connection of the cells to one another, and forced them into the lumen of the duct. Around the nervous ganglia were similar infiltrations, which

sometimes penetrated the ganglia. In the sublingual gland, the changes were similar in kind but less in degree. The orbital gland in dogs, which belongs to the salivary glands, was usually very little altered. The parotid showed badly marked changes in four dogs only; the interstitial infiltration was usually moderate; the gland-cells were a little enlarged, granular, and contained two or three nuclei, and similar changes were found in the epithelium of the ducts of middling calibre. In the human subjects he found scarcely any changes in the parotid, very little in the submaxillary, which was limited to small-celled infiltration of the tissue surrounding the ducts and veins of middling calibre; the most marked changes were in the sublingual. These were less intense, but similar to those found in dogs. He concludes that these appearances are characteristic of an inflammatory process, caused by an infectious material circulating in the blood and excreted by the saliva. As the changes are most marked in the submaxillary and sublingual glands, it is probable that the saliva of these glands principally, or perhaps exclusively, secretes the specific poison. These changes are sufficiently characteristic to permit the diagnosis of lyssa in dogs, but they are too feebly marked and too like what occur in other infectious diseases, or as the result of drugs, to be of the same value in man.—*London Med. Record*, June 15, 1881.

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Turpentine in Diphtheria.

Dr. Bosse (*Berlin Klin. Wochenschrift*, 1881, No. 9) illustrates this method by several cases. Of the pure oil of turpentine, an adult requires one large spoonful a day; children from six to twelve years, two-thirds of the same; children from one to two years, half of a large spoonful. The tolerance of this medicine is greater than might be expected. Out of eleven cases, only four vomited; if rejected, the dose must be repeated after some hours. Generally, alvine evacuations follow, which possess a penetrating odour of turpentine. After these, the general symptoms, such as fever and headache, cease. There is a rapid recovery; patients, who on the previous day took a spoonful of oil, already recovering the day after, or two days at the most, at least as regards the clearing of the throat, and the disappearance of the exudation. They would die only when assistance was rendered too late—*i. e.*, on the sixth or eighth day. Dr. Bosse attributes this effect of the oil of turpentine to its containing ozone. He denies that it has a caustic effect in swallowing, and mentions Naunyn's example, who (1868), in order to try the physiological effect of this remedy, took in company with his three assistant-surgeons 300 grammes of turpentine at one dose, 100 grammes thus coming to the share of each; no pain, except a slight headache, was experienced by these experimenters; neither albuminuria nor strangury followed.—*London Med. Record*, July 15, 1881.

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Diphtheria in Russia.

In *Wratsch* (Nos. 49 and 51, 1880), Berg makes some remarks on 192 cases treated, in part in the ambulance, in part within the Children's Hospital at Charkow. A small number of observations are of especial value from this source, since little work has been published concerning the epidemics of diphtheria in Southern Russia, and because the cases were treated in hospital, and hence could be more carefully watched. The epidemic broke out towards the end of 1878, and continued throughout 1879. The interesting observation was made, that the number of cases always increased after a great change of temperature. Infection was usually the result of direct contact, but in one case infection was conveyed by a third person, who himself remained well. Of the

patients treated in the hospital, 41 per cent. died, this large mortality depending on the fact that a great number of them were in a hopeless condition when first seen. The majority of the children were between two and eight years of age, the percentage mortality decreasing as the age rose. Berg divides the cases clinically into two classes—1. *Slight form.* Recovery took place after four to six days, the temperature never rising above 102.7. The membrane spread equally in all directions, healing progressing from periphery to centre. The membrane was yellowish-white in colour, easily detached, and odourless. The submaxillary glands were always swollen. 2. *Severe form.* The temperature rose to 103.2°. The membrane was usually distributed bilaterally, of a dirty tint, stinking, and rapidly invading the larynx. In the majority of the cases, death occurred in five to seven days from paralysis of the heart. The invasion of the larynx often resulted from the swollen and elongated uvula coming into contact with the root of the tongue and epiglottis, and so spreading the process. In two cases hemorrhages took place beneath the skin, and in one case there was subcutaneous emphysema in the neck. The treatment chiefly consisted in painting with a 10 to 15 per cent. solution of chloride of iron in glycerine, and the use of a 5 per cent. gargle of chlorinated potass. Other drugs were tried (in three cases benzoate of soda) without good results. Pilocarpin was not tried.—*London Med. Record*, July 15, 1881.

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Vidal's Lotion for Diphtheria.

The following formula is given in *La Presse Méd.*, May, 1881. Take 10 grammes of tartaric acid; 25 grammes of hydrolate of peppermint; 15 grammes of pure glycerine; allow them to dissolve. With a brush steeped in this lotion, the diphtheritic patches are touched every three hours. They become reduced to a diffluent pulpy mass, which is afterwards easily removed. In the interval of the application of the tartaric acid, the false membranes are touched with lemon juice. An internal stimulating treatment is prescribed, with substantial and nourishing food.—*London Med. Record*, July 15, 1881.

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Neuralgic Character of Certain Forms of Angina, and their Treatment by Sulphate of Quinine.

Dr. R. Saint-Philippe, surgeon to the Bordeaux hospitals, points out a certain number of cases of angina observed by him, and characterized by intermittent symptoms, so that the patient scarcely suffers at all in the morning, and is the victim of intolerable pain in the evening (*Jour. de Méd. de Bordeaux*, 20 Mars, 1881, p. 371). These forms of angina, which Dr. Saint-Philippe is inclined to refer to neuralgia of the median branch of the trigeminus, are amenable to treatment by sulphate of quinine. He prescribes from 40 to 50 centigrammes (6 to 7½ grains) two hours before the attack, and obtains cure. M. Marotte published analogous cases, in 1874, in the *Bulletin de Thérapeutique.*—*London Med. Record*, July 15, 1881.

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Doliarin as a Remedy for Ankylostomum Dubini.

Doliarin is a crystalline substance extracted from a plant native to Brazil, the *Urostigma doliarium* or *Ficus doliaria*. The juice of this plant is used there as a remedy against a disease which seems to result, like the severe anæmia of the Gothard tunnel workers, from the ankylostomum Dubini. In any case, Dr. Rozzolo has found it the most useful remedy against this parasite, although he does not deny that extract of male fern has been very successful in other hands than his.—*London Med. Record*, July 15, 1881.

Varix of the Œsophagus.

Among the extremely rare positions in which varicose veins may be found is the mucous lining of the œsophagus. An example was exhibited at the Pathological Society by Dr. Bristowe in 1856, in which "the veins of the mucous membrane were found to be enlarged and tortuous, especially in the lower part, having all the characters of varicose veins of the lower extremities." Death was caused by hemorrhage from the perforation of one of these dilated veins. C. J. EBERTH records a closely similar case in *Deutsches Archiv f. Klin. Med.* A man forty years of age had suffered for four years from hæmatemesis and bloody or tarry stools, and this had been repeated eight times within a year of his death. As there was pain over the region of the stomach, the symptoms were thought to depend upon an ulcer of the stomach. At last a fatal hemorrhage occurred, and it was then found that the veins of the mucous membrane were varicose over the lower half of the œsophagus, and that, reaching the size of pencils, they projected as soft cords from the surface. The hemorrhage was traced to an opening in one of these veins, about two centimetres above the cardiac orifice. Several minute white cicatrices were also found along the greater curvature of the stomach.—*Lancet*, June 4, 1881.

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Typhoid Fever with Low Temperature.

FRANTZEL (*Zeit. für Klin. Med.*, Band ii. s. 217) describes severe cases of typhoid fever which attack exhausted individuals, and which run their course with low temperature or without fever, but in which occur general collapse, serious cerebral symptoms, and tendency to gangrene of the extremities, which run a strikingly acute course. Such cases indicate that high temperature is not the only cause of death in typhoid fever, but that cerebral symptoms are of great importance, and that patients even with low temperature must be carefully watched, to preserve them from the many evil consequences of even quiet delirium.—*London Med. Record*, July 15, 1881.

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Desquamation and Infection following Scarlatina.

In the *Lancet*, June, 1881, p. 938, Mr. W. K. RIX, of the Fever Hospital, Bradford, states that in cases of fever, attended with intensely bright scarlet rash and high temperature, the desquamation may be completed in thirty days; that the great majority of cases, however, require from sixty to seventy-two days before they are fit to be discharged. In many cases, after nine weeks' quarantine, it is extremely doubtful whether the old thick skin from the heels has quite fallen off. That the dead skin from scarlatinal patients does carry infection, there appears to be little doubt; but that other factors are at work also appears certain, for frequently patients have been discharged, after all evidence of desquamation had long disappeared, the hair had been cut short, the clothes all changed, and every precaution possible taken to avoid infection, yet fresh cases have occurred within a week of the patient mixing with his brothers and sisters.—*London Med. Record*, July 15, 1881.

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Theory of Mitral Insufficiency.

In most handbooks of medicine, in the chapter devoted to heart-affections, we find the theory of "compensation in valvular disease" based upon the law of retrodilatation and consecutive hypertrophy of the section of the heart situated above the lesion. According to this, mitral insufficiency should be followed by dilatation and hypertrophy of the left auricle, and shortly of the right ventricle

The fact that eccentric hypertrophy of the left ventricle is found in cases of simple mitral insufficiency has been frequently observed, but, nevertheless, scarcely rightly estimated.

Weil (*Berl. Klin. Woch.*, No. 7) agrees with Waldenburg in thinking eccentric hypertrophy of the left ventricle a necessary condition for efficient compensation for insufficiency of the mitral valve, dilatation and hypertrophy of the left auricle and right ventricle being of themselves insufficient to compensate for the lesion. Weil's argument is clear and simple. Mitral insufficiency is only compensated for, when, in spite of regurgitation of a portion of the contents of the ventricle into the auricle, the same quantity of blood enters the general circulation with each systole, as is the case with competent valves. Hence the ventricle must be capable of containing as much more blood as is regurgitated at each systole; as a consequence it must be dilated, and, since the work is increased, it usually becomes hypertrophied. The clinical diagnosis of eccentric hypertrophy depends on the force of the impulse and on percussion. Exaggeration of the sounds over the aortic valves may be absent, since that is merely indicative of increased tension in the aortic system. A further postulate of compensation is dilatation and hypertrophy of the left auricle, and, *hypertrophy of the right ventricle;* the latter may, however, be developed without accompanying dilatation. In proof of this, Weil has continually found eccentric hypertrophy of the left auricle, while he very commonly failed to discover any enlargement of the right heart. Exaggeration of the sounds over the pulmonary valves always existed, a sign of increased tension in the pulmonary circulation. The systolic murmur at the apex alone proves little. The existence of eccentric hypertrophy of the left ventricle with a normal pulse, allows the presumption of insufficiency of the mitral valve even before auscultation.

If with mitral insufficiency stenosis be associated, the hypertrophy may retrograde and altogether disappear, for the stenosis diminishes the amount of blood entering during diastole. The knowledge of this circumstance is the more important for the diagnosis of the combination of stenosis and insufficiency, since, in spite of serious stenoses, no presystolic murmur may exist.

If, however, on the *post-mortem* table eccentric hypertrophy of the left ventricle be seen associated with serious stenosis, it may in these cases be assumed that the hypertrophy is of older date; in fact, dates from the time when the insufficiency of the valves prevailed.—*Lond. Med. Record*, July 15, 1881.

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The Treatment of Phthisis by Residence at High Altitudes.

Dr. C. Theodore Williams, in a paper presented at the last International Medical Congress, first alludes to the effects of great altitudes (12,000 to 20,000 feet) on the human frame, as shown by the observations taken in the Alps, Rocky Mountains, Andes, and Himalayas by De Saussure, Lombard, Lortet, Marcet, Dennison, Zapatu, Jourdanet, and Henderson, and contrasts them with those of more moderate altitudes (from 4,000 to 10,000 feet), as given by Hermann, Weber, Clifford, Allbutt, Ormieux Coindet, Kellet, and others at Davos (Alps), Barèges (Pyrenees), Mexico, Blœmfontein (South Africa), and Landour (Himalayas), deducing that all advantages of mountain climates, without their disadvantages, can be obtained at moderate elevations.

Statistics are then given of cases of phthisis treated by residence at Davos, and in the South African uplands, and instances to illustrate the chief climatic effects on the various organs of the body.

Skin.—The influence on the skin is seen in the tanning of the complexion even during winter, which is due to the diathermancy of the air, and in the bracing effect on the sudoriferous glands causing cessation of night sweats.

Appetite and Weight.—Appetite is greatly increased, except in advanced cases of phthisis, and a gain of flesh (from 7 to 25 lbs.) is the result.

Muscular and Nervous Systems.—Daily exercise and frequent mountain ascents develop the muscular systems largely. The nervous system is stimulated and not unfrequently becomes over excited, and want of sleep follows, but as a rule less sleep seems necessary at high altitudes.

Temperature.—In healthy persons or ordinary chronic cases of phthisis there is little change. Where there is a tendency to pyrexia the exciting influence of the climate develops it, and if pyrexia already exists, it may increase. Mountain climates are generally contraindicated in pyrexial phthisis.

Circulation.—The first effect on consumptives is quickening of the pulse, followed later by a return to the normal rate, with a fuller vascular system, and a more powerful cardiac impulse. The pulse-rate of natives does not differ materially from that of lowlanders (Weber).

Respiration.—At the commencement of residence the respirations are more frequent than in the plains, their depth, as shown by Lortet's tracings being less; after a time they gain in depth and diminish in frequency, returning to the normal standard, as a gradual expansion of the thorax and lungs occurs. There is nothing remarkable about the respiration-rate of natives.

Changes in the Thorax.—Widening of the chest has been noted by Jourdanet and Walshe in cases of phthisis in Mexico and the Andes, by Rellet in consumptive soldiers at Himalayan stations, and by the author in cases returning from the South African mountains, by H. Weber, McCall Anderson, and the author, in patients treated at Davos.

This expansion was noticed by Dr. Ruedi in 95 out of 105 consumptives who passed the winter of 1880–81 at Davos, all stages and conditions of phthisis being here included, even some bedridden cases, and some who were losing weight. It may be concluded therefore that the enlargement of the thorax is not due to accumulation of fat and muscle, but to direct expansion of its walls from external pressure.

The amount of increase in circumference varies from 1 to 3 inches. Measurements taken at various levels, and cyrtometric tracings made by the author to determine the parts of the thorax involved in the expansion and their relation to the diseased lung, have led him to the following conclusions:—

(1) That as a rule the portions of the chest wall overlying the *healthy* lung most frequently undergo dilatation.

(2) That this may be either in an antero-posterior, or lateral direction or sometimes in both directions.

(3) It is more common in the upper regions of the thorax than the lower.

(4) That if the disease be limited to the apex of the lung, the lower portion of chest on that side may become expanded, this leading to very remarkable deformities of the thorax. Observations on the length of residence required to produce this expansion of the thorax show that this varies, but often some months are necessary for the purpose, it being dependent on the respiration rate and on the yielding or non-yielding nature of the thoracic wall.

The length of time this expansion continues after a return to low levels also varies. In one case a considerable dilatation only lasted three months after return to England, in another about six months. In the majority of cases, however, it is of long duration and probably permanent.

Changes in the Lungs.—The changes in the thorax are accompanied, or preceded by marked increase of resonance over the whole chest, diminution of dulness over the affected areas, the substitution of dry sounds for moist, and the appearance of (emphysematous) crackle around the old lesions often masking

other sounds. The tendency of cavities to contract does not seem greater than in patients treated at low levels. Over the healthy parts of the lungs the breath sound becomes harsh and puerile, the inspiration very long and the expiration short and feeble. Bronchophony and bronchial breathing become less distinct. The appearance of the thorax is striking, the intercostal spaces are hardly seen, the chest is full and well developed, but differs from the barrel-shaped form of large lunged emphysema.

The above phenomena indicate:—

(1) The development of vesicular emphysema around the affected portion of the lungs, thus localizing the disease and preventing its extension to healthy portions by infection from a caseous centre or from a secreting cavity.

(2) Absorption of some of the consolidations.

(3) The hypertrophy, or at any rate more perfect development of the healthy lung and of certain portions of the diseased one. These extensive changes in the lung-tissue necessarily lead to the dilatation of the thorax, the total result being due partly to the rarefaction of the air, and the consequent necessity at first of more frequent respirations, and later on of deeper ones, and partly to the species of lung gymnastics which the constant exercise, and especially the mountain ascents, induce.

The author is of opinion that the above constitute the principal elements in the curative process of mountain climates, but he does not undervalue the effect on the constitution generally of the dryness and purity of the air, and its freedom from septic materials.

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Pneumothorax and Empyema.

H. Senator (*Zeit. für Klin. Med.*, Band ii. s. 231) brings forward four cases to disprove the current opinion that fluid effused in the course of a pneumothorax must be purulent. He insists on the frequency of bilateral pleurisy in unilateral pneumothorax, and the occurrence of late pericarditis in cases of pneumothorax. When exudation takes place in pneumothorax due to internal injury of the lung, the fluid seldom putrefies in spite of the free access of air. He urges the point, overlooked in the text-books, that pleuritic effusion in children is generally purulent. With regard to the treatment of pneumothorax he lays down these rules. 1. If only air be present, no good can be done by operative interference. 2. If fluid be also present, the fluid should be tapped, not the air. 3. If the fluid be putrid, an incision must be made. Aspiration is indicated with serous or purulent exudations in phthisical patients. He recommends that the pus should be diluted by the injecting of an indifferent fluid, so that it will run better through a fine trocar, and what is left behind will be more easily absorbed. He avoids disinfecting the pleural cavity or emptying it completely.—*London Med. Record*, July 15, 1881.

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Stertorous Breathing in Apoplexy.

In the *Brit. Med. Journ.*, May, 1881, p. 845, Dr. Robert Bowles again draws attention to the great value of position in relieving one of the most distressing and dangerous conditions of the apoplectic state, namely, stertor. [Previous papers may be consulted, *Med. Times and Gaz.*, Jan. 1860, p. 126; *Lancet*, June, 1870, p. 875, Dec. 1880, pp. 971, 1018.] If a patient with an attack of apoplexy be laid on the side paralyzed, immediately the stertor ceases, from the fact that the tongue falls on one side, allowing free ingress of air to the lung on the sound side, which is better able to carry on its functions. The cerebral circulation on the diseased side is also, by this plan, relieved from all hypostatic

congestion, and this may have a material effect in relieving the urgent symptoms. Dr. Bowles distinguishes several kinds of stertor: palatine, pharyngeal, mucous, nasal, laryngeal, and buccal stertor. Nasal stertor is readily removed by mechanically dilating the paralyzed nares. It is the pharyngeal form of stertor that so seriously aggravates the symptoms, adding suffocation to the apoplectic phenomena; and on removal of this symptom, by the simple act of change of position, the change from certain death to life is frequently obtained.—*London Med. Record*, July 15, 1881.

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Pathological Changes in the Retina associated with Progressive Pernicious Anæmia.

In *Klin. Monats. für Augenheilkunde* (Dec. 1880), UHTHOFF describes the changes revealed by the microscope in the retinæ of six eyes removed after death from four cases of fatal penicious anæmia. They were, 1, hemorrhages, limited chiefly to the nerve-fibre and intergranular layers, and situated for the most part near the posterior pole, especially around the disk; 2 varicose hypertrophy of the nerve-fibres, affecting chiefly those of the most internal layers, so as to cause them to intrude upon the vitreous body, and consisting chiefly of the often-described shining, or finely granular masses of spherical, or spindle-shaped or retort-like form; 3, homogeneous colloid, or finely granular masses in the intergranular layer, present in one case only. It seems from these observations that progressive pernicious anæmia must be added to the list of morbid conditions which give rise to a peculiar varicose hypertrophy of nerve-fibres.—*London Med. Record*, June 15, 1881.

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Cerebral Amblyopia and Hemiopia.

In this paper (*Brain*, part xii.), Dr. FERRIER furnishes material aid in explaining away the differences which have been hitherto apparent between the facts of clinical medicine and pathology, and those of physiological experiment, with regard to the relations of the eyes to the cerebral hemispheres. From numerous facts and arguments, the author arrives at the conclusion "that there is a twofold relation between the eyes and the cortical visual centres; the one mainly cross—the central portion of the retina probably bilaterally represented—by the angular gyrus; the other bilateral—the corresponding side of both retinæ being represented—by the occipital lobe, not alone, however, but in conjunction with the angular gyrus." From the nature of the impairment of vision existing in cerebral hemianæsthesia of organic origin, and which is due to lesion of the posterior segment of the internal capsule, external to the optic thalamus, the author concludes that the fibres which pass through the segment are specially in relation with the angular gyrus, and represent the opposite eye as regards those functions which are affected in hemianæsthesia. In cases of hemiopia, where central vision is retained for some degrees on all sides of the point of fixation, Dr. Ferrier considers that the cause is cerebral, not peripheral. In relation to this subject, numerous cases are discussed, and three unpublished ones are related.—*London Med. Record*, June 15, 1881.

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Treatment of Epilepsy.

Dr. LASKIEWICZ (*Przeglad lekarsk.*, Nos. 4 and 6, 1881, *Centralblatt für Nervenheilkunde*, 1881, No. 6) commences the treatment of epileptic patients with bromide of potassium, of which a solution of one gramme is best given in the evening. As often as the attacks are repeated, the dose is increased one gramme daily, until 20, 25, and even 30 grammes are reached. The author

mentions a case in which as much as 60 grammes per day was given for some time. This remedy is very differently tolerated. The largest dose which has had an effect is to be continued for months and years, and then diminished with great care. Probably the patient will then be free from future attacks. If the remedy be not tolerated, atropine must take its place. This it is best to give as an alcoholic solution: 8 centigrammes of sulphate of atropine in 20 grammes of alcohol; this to be kept well closed in a glass. The dose is increased from one to ten drops, the largest dose for adults being twelve drops per day. It will be best to give it in milk or soup, about one hour before or after breakfast. The alkaloids of coffee, cocoa, or tea diminish the effect of atropine.—*London Med. Record*, July 15, 1881.

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Compression of Carotid in Trigeminal Neuralgia.

Dr. SEIFERT (*Berlin. Klin. Wochensch.*, 1881, No. 11) publishes three cases of trigeminal neuralgia, in which he successfully employed compression of the carotid, as recommended by Gerhardt. The compression was made to last from fifteen seconds to one and a half minutes, and repeated as often as the pain was interrupted, while arsenic and quinine were likewise administered. Gradually, the intervals were lengthened.—*London Med. Record*, July 15, 1881.

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Schiller on a Case of Catalepsy with Speech-reflexes.

SCHILLER (*Bres. Aertzl. Zeit.*, 1780, No. 21, and *Central. für die Med. Wiss.*, 1881, No. 17) reports the case of a previously healthy girl, aged 10 years, who became suddenly unconscious; the night before she had complained of stomach-ache, which had disappeared in the morning. The limbs could be moulded into any positions, and, in spite of their inconvenience, retained these for some time, and then gradually sank down again. Stroking from below upwards in the umbilical region made the child give a peculiar cry, which was not caused by deeper and sharper pressure on the same place. Also touching a place close to the manubrium sterni caused a peculiar cry. Strong electrical stimulation (the electric brush) and a vinegar enema, cured her after the lapse of one hour and a half. On other days, there were symptoms of commencing chorea in the facial muscles and fingers, which afterwards disappeared. The child has remained quite well for more than six months since the attack, of which she retains no recollection.—*London Med. Record*, July 15, 1881.

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Formation of Trichinæ Cysts.

The mode of formation of the cysts of trichina has been studied by M. CHATIN and described in a communication to the Académie des Sciences. It was formerly said to be formed partly from the contractile tissue, and partly by a secretion from the nematoid, but this opinion was based only on some apparent differences in the thickness or aspect of the cyst wall, and not on any careful study of its formation, which necessitates the examination of animals dying or killed in different stages of the affection. When it arrives in the muscles the worm forms adhesions with the interfascicular tissue in which rapid changes occur. The elements increase in size, and during the growth of the protoplasm it assumes the appearance of an amorphous mass, in which, however, nuclei and vacuoles can be seen, which seem to indicate that the mass consists really of aggregated cells. By the growth of this the primitive fibres are compressed. In the new protoplasm fine proteoid granulations are first observed, and then other granulations which present all the reactions of glycogen. Then follow important changes in the periphery of the

granular mass containing the trichina now curled up in the interior; the outer surface becomes distinctly thickened and indurated, and may then become lamellated or present granulations or folds. The sarcolemma takes no part in the formation of the cysts except occasionally furnishing it with a purely adventitious layer. Moreover, when the nematoid contracts its first adhesions to the sarcolemma, and not to the interfascicular tissue, it rapidly dies without determining a new formation.—*Lancet*, July 30, 1881.

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The Need of Revaccination.

Dr. RENNER, in a communication to the *British Medical Journal* of June 4, 1881, shows in a very conclusive manner the very highly unprotected state of the adult population against smallpox, owing to the neglect of revaccination. In eighty-one cases in which persons had not been revaccinated since the first vaccination in infancy, ninety per cent. of the revaccination with calf-lymph proved successful; showing that, in ninety per cent. of those persons, the protection afforded during early life had worn out, and the necessary protection to be obtained by revaccination after the age of fifteen had been neglected, until the present alarm, owing to the epidemic prevalence of smallpox, had reminded them of the extreme danger of such neglect. As a matter of fact, it is essential, as a protection of the population from smallpox, that each individual should be successfully revaccinated after the age of fifteen. The rule is very simple, and the evidence overwhelming. Our soldiers, sailors, postmen, smallpox nurses, all of whom are revaccinated, enjoy an almost absolute immunity from smallpox, even during epidemic periods, and when surrounded with disease. The like immunity may be obtained by every rational member of the community who chooses to submit himself after the age of fifteen to revaccination. The present epidemic of smallpox is a lamentable monument of the human folly and neglect, which leave out of view a harmless and necessary precaution against so fatal and loathsome a disease. The responsibility of the misguided persons who seek to deter from obtaining this protection is great indeed; and it is difficult to use words of moderation in viewing all the fanatical ignorance and obstinate perversion of the truth of the facts with which they stimulate and maintain their reckless and mischievous crusade.

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Ainhum.

Dr. FRANCIS GUYOT (*Le Prog. Méd.*, 1881, No. 19) gives a description of this peculiar tropical disease, and adds four cases observed by himself. It is met with in North Africa, in Southern India, Central America, and some of the Pacific islands. It affects generally the fifth toe, but sometimes the fourth, and more rarely many or all the fingers and toes. The chief symptom is an annular groove round the affected member, deeper on the palmar or plantar surface, growing deeper as it advances until amputation results. The surface of the fissure is normal; sometimes it is bathed in serous fluid, sometimes the segment above the fissure becomes swollen. In some cases the tissues of the stump are normal, more often atrophied or undergoing fatty degeneration, but preserve a healthy nucleus. There is neither inflammation, constitutional reaction, nor pain. It lasts often many years. It has no ultimate bad effects on the general health. The negroes attribute it to a parasite, but there is no evidence in favour of this view. Females do not escape. Consanguinity probably plays some part. No treatment is of use, though Da Silva Lima cured one case by an incision at right angles to the groove.—*London Med. Record*, July 15, 1881.

Antiseptic Inhalations in Pulmonary Affections.

Dr. J. G. SINCLAIR COGHILL, in the *Brit. Med. Journ.*, May, 1881, p. 841, has an interesting paper upon the value of antiseptic inhalations in all lung affections characterized by purulent expectoration. By this means we are enabled to dispense with cough-mixtures by arresting the secretion of the sputa; for, if sputa exist, cough must necessarily follow, and it is dangerous to arrest the cough under such circumstances. Dr. Coghill finds the following formula good: ℞ Tincturæ iodi ethereales, acid carbolici, āā ʒij; creasoti vel thymoli, ʒj; spiritûs vini rect., ad ℥j; M. If the cough be urgent, or breathing embarrassed, chloroform or sulphuric ether may be added at discretion. The mode of inhaling is most important. The patient should be carefully instructed to inspire through the mouth alone, and expire through the nose, as, by this means, the medicated air is forced into the remoter air-cells.—*London Med. Record*, July 15, 1881.

Surgery.

Removal of the Entire Tongue through the Mouth by Scissors..

In the Section on Surgery of the International Medical Congress, Dr. WALTER WHITEHEAD read a paper upon the removal of the tongue through the mouth with scissors, and gives the details of the operation. He says, "On November 3d, 1877, I removed the whole of the tongue through the mouth with scissors. (Vide *British Medical Journal*, 1877, Dec. 8, p. 303.)

"This case, to the best of my knowledge, was the first instance of the entire tongue having been removed for disease through the mouth by simple excision.

"More than thirty tongues have since been removed by the same plan.

"The operation is conducted in six stages after the following simple manner: 1. The mouth is opened to the full extent with a suitable gag; and the duty of attending to this is entrusted to one of the two assistants required. 2. The tongue is drawn out of the mouth by a double ligature passed through its substance an inch from the tip. 3. The operator commences by dividing all the attachments of the tongue to the jaw and to the pillars of the fauces. 4. The muscles attached to the base of the tongue are then cut across by a series of successive short snips of the scissors until the entire tongue is separated on the plane of the inferior border of the lower jaw, and as far back as the safety of the epiglottis will permit. 5. The lingual or any other arteries requiring torsion are twisted as divided. 6. A single loop of silk is passed by a long needle through the remains of the glosso-epiglottidean fold of mucous membrane, as a means of drawing forwards the floor of the mouth should secondary hemorrhage take place.

"The patient is fed for the first three days by nutritive enemata; satisfying thirst by occasionally washing out the mouth with a weak iced solution of permanganate of potash. The difficulties and dangers of the operation are few. Hemorrhage is easily controllable. I have twice removed the entire tongue without having to secure a single vessel, and more than once have only had to twist one lingual artery.

"A table of twenty-eight cases, with one death the immediate result of the operation (an old man æt. 62), accompanies the paper. Two other deaths occurred in consequence of the operation, but from remote causes.

"Taking the most unfavourable estimate, the deaths in the twenty-eight cases do not amount to 11 per cent., and, when contrasted with the 30 to 60 per cent. of deaths resulting from removal of the tongue by any other operation, I venture

to affirm that substantial evidence has been submitted in favour of the removal of the tongue with scissors."—*Official Abstract of Proceedings International Medical Congress.*

Suprapubic Lithotomy.

In a recent contribution on "Lithotomy and Antisepticism" (*Archiv für Klin. Chir.*, Band xxvi., Heft 1, 1881), Dr. CARL LANGENBUCH of Berlin advocates the high (suprapubic) operation. In perineal lithotomy, the antiseptic method cannot be rigorously carried out, in consequence of the proximity of the anus, whilst in the high operation this method is applicable under very favourable circumstances. The risk of wounding the peritoneum in this latter operation is not so great as is generally supposed, since out of 478 cases of suprapubic lithotomy collected by Dr. Dulles, in thirteen only had this membrane been wounded, and of these three cases were fatal. It was shown also by the same author that any stone weighing more than two ounces could be removed with less risk by the high than by the perineal operation. This latter proceeding, however, in Germany, as in other countries, has long been almost exclusively favoured, high lithotomy having been resorted to in some few cases of very large and very hard stone.

The author considers whether this preference of perineal to suprapubic lithotomy can be supported by anatomical and physiological data and by clinical experience. Urinary infiltration of connective tissue, it is pointed out, is a danger common to both operations, which, however, in the suprapubic proceeding can be prevented. The danger of this infiltration, when it has occurred, is much less after the high than after the perineal operation, since the epi-cystic is more accessible and less confined than the peri-prostatic and circum-rectal connective tissue, can be more readily incised and disinfected, and, as it is not connected with any large venous plexus, is less likely through its decomposition to set up general septic infection. In the high operation, the incisions can be made carefully and precisely, and through structures that are freely exposed to view, and there is no necessity for forcible laceration and contusion of connective tissue and other soft parts. It may be said, the author suggests, that it is as difficult to set up urinary infiltration after the high operation, as it is to prevent such infiltration after lithotomy by the perineum.

In the high operation, when successfully performed, the only structures that are incised are integument, cellular tissue, and the wall of the bladder; all which structures are capable, after healing, of performing their physiological functions. In perineal lithotomy, on the other hand, many vascular and glandular structures must necessarily be wounded, and some of these are liable to be permanently injured. The latter operation may, it is true, be very often considered as successful; the stone has been removed, and the patient recovers; but it cannot be denied that it is often followed by one or more of such results as urethral stricture, incontinence, impotence, urinary fistula, recto-vesical fistula. With regard to the danger of wounding the peritoneum in the high operation, it is stated by the author that the topographical conditions of the para-cystic peritoneal fold in adults are not so unfavourable as is commonly supposed. Petersen of Kiel has shown by recent experiments on the dead body that, though the bladder is inaccessible when empty, yet, by the injection of water into this viscus and also into the rectum, the peritoneal reflexion can be elevated to an average distance of one inch and a third above the upper margin of the symphysis pubis. In a smaller series of experiments, Langenbuch has been able, by extreme distension of the bladder by injected fluid (800 to 1000 cubic centimetres), to raise above the symphysis from two inches to three inches and a third of uncovered vesical wall. In

some of these experiments, it is stated that the bladder was filled almost to the point of bursting. With this question two factors, one negative, the other positive, come into play. In cases of calculous impaction at the neck of the bladder, especially when the stone is large, it will often be found impossible to introduce any quantity of fluid into this viscus. On the other hand, there is no necessity for free incision into the bladder, since the vesical wall, unless much thickened, is very elastic, and a small orifice can be readily dilated by traction in different directions. Langenbuch concludes that in ordinary cases sufficient room can be obtained above the symphysis for the performance of the high operation, by injecting the bladder, or, if this cannot be effected, by distending the rectum.

The risk of wounding the peritoneum in the high operation is no reason, Langenbuch holds, for preferring perineal lithotomy in these days of antiseptic surgery, when many laparotomies are performed yearly with little mortality. Much depends on whether the peritoneum be wounded before or after incision of the wall of the bladder. In the former, no danger is likely to result if the operation be performed under antiseptic conditions, and if the opening of the bladder be postponed for a time, and until after the cicatrization of the superficial wound. If the peritoneum be accidentally wounded after the vesical wall has been incised, then there is great risk of decomposed urine passing into the abdominal cavity and setting up fatal peritonitis.

For the removal of a large stone—one with a maximum diameter of about two inches—the safest proceeding, Langenbuch thinks, is the high operation performed in two stages, and under strict antiseptic conditions. To meet the case of a monster stone, measuring from four to seven inches in diameter, the extraction of which in the second stage of the high operation would probably cause much laceration of the recently healed superficial parts, and also of the peritoneal fluid, he proposes a complicated proceeding. A description is given of a high operation in two stages. In the first stage, the anterior surface of the bladder is freed to some extent of its layer of peritoneum, and a plastic operation is performed on this membrane. In the second stage—that of extraction performed after an interval of from five to eight days—elaborate precautions are taken to disinfect the bladder.

Dr. Langenbuch does not undertake in this paper to discuss how far the indications for lithotrity might be modified by a general acceptance of his proposed antiseptic high operation performed in two stages, but points out that, in the first place, the invention and development of lithotrity are due to the dangers of lithotomy, and that, in the second place, the former proceeding, as is well known, is not free from danger, nor capable in every case of effecting complete cure.—*London Med. Record*, June 15, 1881.

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Treatment of Blood-Cysts of the Thyroid Gland by Electrolysis.

M. Berger, in the name of M. Onimus and himself, read a communication on this subject at the last meeting of the Paris Société de Chirurgie (*Bull. Gén. de Thér.*, May 15, 1881). A lady had suffered for a year and a half with a tumour on the left side of the thyroid gland, and, latterly, it had rapidly increased in size. The first puncture was almost immediately followed by a relapse. The tumour rapidly became as large as an apple; it was movable, colourless, fluctuating, and already gave rise to disturbances in the action of the air-passages. M. Onimus proposed to treat it by electrolysis. On the 30th of January, MM. Berger and Onimus made a puncture, which gave issue to about 150 grammes of a chocolate-coloured liquid. A carbolated injection was then made by the channel; then an injection of a solution of iodide of potassium of ten degrees of

strength. There was then introduced into the cystic cavity, filled with this solution, a metallic stem placed in communication with the positive and negative poles of the electric pile, of from 24 to 36 elements, whilst the other pole was applied on the periphery. There was a little hemorrhage. In a short time the cavity refilled itself, and the tumour was as large as ever. The day after the operation there was an attack of intermittent fever, which was only one of those diathetic reminders pointed out by M. Verneuil. M. Berger gave up the patient five months ago, being persuaded that it was a bad case. Four weeks ago he discovered that from the size of an apple the tumour had become reduced to that of a nut, and since that time it had decreased in considerable proportion. M. Boinet also related several cases in which he obtained excellent results after puncture, followed by the iodized injection. It was a mistake to believe that the iodized injection was also followed by acute inflammation, for in the cases to which he alluded there was neither inflammation nor suppuration. M. Delens remarked that he could not quite understand the curative action of electrolysis in M. Berger's case. The treatment was complex; there had only been one application. Generally the action of electrolysis was much more slow, and it was necessary to repeat it frequently. M. Desprès pointed out that there were serous cysts with thin walls, which were cured with one simple puncture, and there were others with anfractuous walls, with syrupy and sticky contents, on which treatment was excessively difficult. In fact, in these cases the iodized injection did not succeed better than anything else. M. Le Dentu agreed with the last speaker as to the fact that there were mild cysts, and there were others in which the treatment was very difficult. It was not always easy to ascertain which variety was present. A puncture was made, blood flowed, and sometimes there was great difficulty in arresting the hemorrhage. The therapeutic treatment should therefore be varied according to the cases in serous cysts. The iodized injection left excellent results in sanguinous cysts. There was often a gangrenous inflammation, which might go on to elimination of the sac. The effect of electrolysis had yet to be determined. M. Berger concluded by owning that he was opposed to iodized injection, but he believed that in certain sanguineous cysts electrolysis brought on coagulation.—*London Med. Record*, July 15, 1881.

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Symptomatology of Mediastinal Tumours.

A. SCHREIBER (*Deutsches Archiv für Klin. Med.*, Band. xxviii. s. 52, *Central für die Med. Wiss.*, No. 17, 1881) bases his remarks on four cases observed in Ziemssen's clinic. 1. A girl, aged 21, complained for some months of palpition and breathlessness. There were physical signs of left-sided pleuritic effusion; later on, a peculiar dulness developed, which began at the right costal cartilages and ran across the sternum to the left anterior axillary line, then downwards and backwards, and finally, horizontally to the spine. The pleura was punctured many times with temporary benefit. There were then some difficulty in swallowing, and slight right-sided pleuritic effusion. There was a fibro-sarcomatous tumour as large as a man's head. 2. A baker, aged 17, complained for eight days of cough, pain in the chest, and loss of appetite. The expression of his face was anxious, the skin was yellowish, the veins of the neck were distended. He had a barking cough. There were paralysis of the right vocal chords, and multiple swollen lymphatic glands. He had slight fever. Later on there was increased glandular swelling, especially along the lower border of the pectoralis major. He had increasing breathlessness. There was dulness above the heart, reaching up to the clavicle and to the axillary line. Section showed a round-

celled sarcoma of the anterior mediastinum, with numerous metastases which pressed on the vena cava and recurrent nerve. 3. This case was that of a woman, aged 35, with diffuse fibro-sarcoma of the mediastinum, which led to metastases in the lungs, and to closure of the vena cava and subclavian vein. 4. A peasant, aged 31, had been ill eight and a half years. He was breathless and had swollen veins on the thorax. There was a resistant tumour in the left supraclavicular region. He had œdema of the face. There was protrusion of sternum and superior thoracic region. There was absolutely empty note over the whole sternum and along the right sternal border. The dulness was limited to the left by a line drawn from the attachment of the third rib, outwards and downwards to a centimetre outside the nipple.—*London Med. Record*, July 15, 1881.

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Causes of Death from Burns.

Lesser (Virchow's *Archiv*, Band lxxix.) first of all combats the deductions drawn by Sonnenburg from his experiments (*Deutche Zeitsch. für Chir.*, Band. ix.), and, supported by his own experiments, conclude that irritation of the terminations of the cutaneous nerves is of no special importance in death rapidly following burns. He then passes on to demonstrate the changes which take place in the blood circulating in the skin in burns of the surface of the body; and further, the changes induced in the body by these alterations. He has come to the conclusion that (apparently without essential destruction of the red corpuscles) the red colouring matter of the blood becomes diffused in the plasma. He proves this by transfusing defibrinated blood heated to above 70 deg. Cent. (158 deg. Fahr.), as well as that of previously burned animals. The diffused colouring matter is chiefly excreted by the kidneys in the urine, as is evident from examination of the urine and kidneys. The excretion begins about an hour after the burning, and may continue as long as two days. On *post-mortem* examination, extravasations of blood were discovered in various organs, and in the kidneys large collections of blood-colouring matter especially within the convoluted tubes, pigment-granules between the epithelium, hyaline cylinders, etc. On the ground of previous, as well as some more recent, experiments, Lesser discusses the possible causes of death; and, after eliminating numerous possibilities, advances the theory that a relatively too large number of red disks (through separation of the blood-colouring matter and consecutive damage) become fully developed, so that a sufficient quantity of blood for the completion of the respiratory processes necessary for the prolongation of life is no longer furnished, and, as a consequence, paralysis of the respiratory and circulatory centres ensues.

Lesser thinks that the injurious effects of burns on the general system depend neither on the thickness and capacity for resistance of the skin, the extent of the burned region, nor on the intensity or length of the operation; but that for seriousness of the burns it is necessary that the circulation should be kept up in the burned parts, and that new masses of blood should constantly stream through the heated skin and muscles; the longer this is continued, so much the greater being the number of the red corpuscles robbed of their vitality. At a later period, death may result from septicæmia.

Lesser speaks strongly in favour of the method of treatment already recommended by Ponfick for severe burns; viz., transfusion, in addition to local antiseptic treatment, and is of opinion than transfusion may still be useful at a later period, if the patient do not recover his strength.—*Lond. Med. Record*, July 15, 1881.

Rupture of the Bladder.

In a paper read at the German Medical Society of St. Petersburg (*St. Petersburg Med. Woch.*, June 11), Dr. ASSMUTH stated that he had brought forward two cases of rupture of the bladder from muscular exertion in consequence of the rarity of the accident; for, although these two cases were admitted into the Obuchow Hospital in two successive years (1879 and 1880), yet Bartels, in his monograph on the subject, states that among 10,867 surgical cases, treated at the Bethanieu in Berlin (1869–76), only three cases of rupture of the bladder occurred, and in 16,711 surgical cases at St. Bartholomew's only two cases occurred. Of the 169 cases collected by Bartels, not one arose from mere muscular exertion.

The subject of the *first* case was a man, thirty-two years old, who, while removing a heavy sack of flour from a railway platform to a cart, was seized with a violent pain in the hypogastrium. Trying some time after to make water, he only passed a few drops of blood. He came to the hospital on foot two days afterwards. His pulse was then 88, and his temperature 37.7° C. There was great tenderness in the hypogastrium, and a catheter only withdrew a few drops of blood. His general condition, and the apparent absence of any cause for it, prevented the diagnosis of a ruptured bladder, which the local symptoms would have justified. He soon, however, became much worse, and died on the sixth day after the accident, without having passed a drop of urine. The autopsy exhibited recent general peritonitis, and a rupture, two centimetres and one-third in length, at the upper part of the posterior wall of the bladder, a little to the right of its apex. The *second* case occurred in the person of a man forty years of age, who, two days prior to admission, had been seized with a violent pain in the hypogastrium while endeavouring to raise a very heavy burthen. He died on the sixth day after the accident. Peritonitis with purulent exudation was found, together with a rupture, three centimetres in length, at the right side of the posterior wall of the bladder, about two centimetres from the apex. The mucous membrane of the bladder was quite normal in appearance, and no trace of coagulum was found within the organ or in its vicinity. Of the urine, which during life had in both cases collected in the right hypogastrium, there was but little found after death, it having evidently become diffused by the intestinal movements. The local tenderness in that region became less concentrated in that spot; and after death a diffused peritonitis was found to be present.

In both these cases the muscular exertion required to raise a heavy burthen was obviously the cause of the rupture, and although hitherto no example of such an occurrence has been published, yet an analogous action in the production of fractures and dislocation is not rare. Although both patients denied that the urine had been long held in the bladder, there can be little doubt that considerable distension must have existed. In practice we frequently meet with very erroneous statements as to the fulness of the bladder, and that not only from defective self-observation, but also from impaired elasticity of the walls of the bladder, preventing a right judgment being formed as to its distension. In both cases the localization of the rupture of the bladder was the same; and Dr. Assmuth deduces from Hyrtl's description of the anatomy of the bladder that this was at the feeblest part of the organ.—*Med. Times and Gazette*, July 23, 1881.

Cancer of the Breast and Meninges.

The following case is related by Dr. OTTO LUND, in the *Norsk Magazin for Lägevidensk* for 1880. A woman, aged 59, was operated on, in October, 1869,

for a cancer of the right breast; and in November, 1876, for a cancerous infiltration of the glands in the right axilla. In the interval, three years after the first operation, the patient—who was said to have suffered several times while young from convulsions and attacks of giddiness, and afterwards also from migraine—was again seized with giddiness, which came on, or was made worse, when she turned her head to the right, while lying in bed. The attack of giddiness passed off gradually; but, after some years, she had sciatic pains in the left lower limb, and periodical pains in the right half of the forehead, and in the right temple, with tenderness on pressure. There was no disturbance of intelligence; weakness of memory was first observed in 1880. In February she had an epileptiform attack, with loss of consciousness and tonic convulsions, during which the head and eyes were turned to the right side; after the attack, there was found to be paralysis of the upper and lower limbs. The intellect also became disturbed; and she died on March 29th, fourteen days after a similar attack to that above described. On *post-mortem* examination, a cancerous nodule, of the size of a nut, was found in the left breast (this had been observed during life); there were two disk-shaped cancerous growths, respectively 5 and 3 centimetres (2 inches, and 1.2 inches) in diameter, and about half a centimetre thick, in the arachnoid in the right parietal region, and a smaller similar tumour on each side of the crista galli. There was fatty degeneration of the heart.—*London Med. Record*, June 15, 1881.

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Of Syphilis Fungus.

Dr. BERMANN of Baltimore describes (*Archives of Med.*, Dec. 1880, p. 263) certain microscopic growths which he found in syphilitic primary sores, and which he believes to be peculiar to that disease. The author begins by quoting Klebs's experiments on the subject, and states that, before the publication of that observer's views, he had already discovered certain fungoid growths in a freshly excised prepuce obtained from Zeissl. What first attracted Dr. Bermann's attention was a singular collection of micrococci and fungoid growths, firmly adhering to and partly filling up the lumen of most of the lymphatic vessels. Some of the arteries also contained these growths, intermixed with blood-corpuscles. The growths were found in all the hundreds of sections made by the author. The micrococci are small, strongly refracting spherical bodies, and resemble those illustrated by Klebs; but the bacteria, described by the same observer, Dr. Bermann found only in a few instances, and then only in the arteries. The principal changes take place in the lymphatics, and chiefly in those at some distance from the initial sclerosis, which explains, according to the author, why others have been unsuccessful in discovering these organisms.—*London Med. Record*, June 15, 1881.

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Case of Hepatotomy for Hydatids.

Mr. LAWSON TAIT, in a communication to the *British Medical Journal* for July 16, 1881, says: "The following notes briefly give the details of the sixth case of this operation which I have performed; and, like the others, it has been remarkable for the speedy and complete recovery of the patient from the operation, and the thorough cure of the disease from which she was suffering.

"A. M. S., aged 7, was admitted to the Women's Hospital early in May last, suffering from severe symptoms due to a tumour which existed on the right side and above the level of the umbilicus, which was clearly cystic, and in all probability connected with the liver. It gave the patient great pain; and I diagnosed it to be a hydatid tumour of the liver. She had been under the care of my friend

Dr. Welch at the Children's Hospital, who has kindly favoured me with the following notes.

"The child never was strong; on the contrary, she had always been regarded as delicate. A year ago, her mother noticed that her motions were rather white-coloured. A swelling was noticed in the abdomen about November last, and she complained of pain across the back and shoulders. When she was admitted to the Children's Hospital, in December, 1880, there was a firm tumour just below the ensiform cartilage, the dulness extending round the side. It was noticed in February that there were some nodules on the surface of the liver, also that the tumour was more freely movable.

"When she was admitted to the Women's Hospital, under my care, she had a tumour about the size of a fœtal head, which was extremely tender to the touch. The child was very sick and ill, and altogether her appearance warranted interference. I therefore opened the abdomen on May 20th, making an incision about three inches long, an inch and a half to the left of the umbilicus, the lower end corresponding to the umbilical level. When the cavity was opened, it was perfectly clear that the tumour was situated in the liver, and was a hydatid cyst. I removed from it, by means of an aspirator, about twenty-six ounces of clear fluid containing a large number of scolices. I then enlarged the aperture in the liver to about an inch and a half, and secured its edges to the edges of the parietal wound by means of a continuous suture, and fastened in a wide soft India-rubber drainage-tube about six inches long. She went on perfectly well; her severe symptoms were immediately relieved, and on May 26th the mother-cyst came away entire. The drainage-tube was removed on May 30th; and on June 2d she left the hospital with the wound quite healed, having gained greatly in weight, and having acquired a perfectly healthy appearance.

"No attempt was made to conduct the case upon Listerian principles, the only dressings used to the wound being lead lotion and absorbent wool."

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Treatment of Intra-Thoracic Suppurating Hydatid.

At the April meeting of the Medical Society of Victoria, Dr. S. D. Bird reported two cases in which intra-thoracic hydatid cysts, which had advanced to the stage of death and decomposition, were got rid of by incision between the ribs. Such treatment is, of course, a more complete and radical cure than any system of tapping, injection of parasiticide fluids, or electricity can be, as the latter always leave with the cyst the possibility of its refilling if its vitality is not completely destroyed, of which we cannot be absolutely sure. On the other hand, extraction is a much more serious operation, and one that requires considerable time and patience for its successful accomplishment, as well as the existence of certain conditions without which such a procedure would be hardly allowable.

To my mind the conditions that justify incision between the ribs, with the view of extracting hydatid cysts, are—*First*, any case of hydatid in the pleural sac, in which situation the cyst always enlarges with great rapidity, and even when emptied of its contents, or dealt with in any way short of removal, remains a permanent source of irritation to the serous surface, with consequent pleuritic pains, febrile irritation, and even inflammatory effusion. The question now naturally arises as to the possibility of the differential diagnosis of pleural hydatid from one in the lower lobe of the lung, or in the convex surface of the liver, especially on the right side. In most cases it will be very difficult to decide before operation, the only special physical sign of pleural hydatid being that the usual rounded area of dulness is to some degree alterable by change of position, which is not the case if the cyst is embedded in the lung substance. In my cases

the pleural cyst has always been loose, and has not contracted adhesions to the serous surface.

The *second* set of cases demanding incision and extraction are those of large old suppurating cysts of the lung which have generally found their way into a bronchus, and fragments of cyst and fetid pus are being constantly expectorated with great labour and distress to the patient. Such cases are generally in the lobe, and if of long standing, adhesions will almost certainly be found to have taken place, so that the operation will be comparatively safe and easy. I have seen over a dozen of such cases, and in no one has the result been other than completely successful. I shall now proceed to read notes, hitherto unpublished, of two cases, one of pleural and the other pulmonary hydatid, treated in this way.

Mrs. G., æt. 26, married lady with two children, native of a neighbouring colony, consulted me for a condition which had been diagnosed variously as pleurisy with effusion, enlargement of the liver, and abscess. On examination, the right side measured one and a half inches larger than the left, intercostal spaces not bulged. There was no febrile pleuritic history, but she described stitchy pains all over the side of a distinctly pleuritic character, and also pains in the point of the shoulder that were suggestively hepatic. On percussion and auscultation the question of pleuritic effusion was set at rest, as the rounded area of dulness characteristic of hydatid presented itself in the lower part of the right chest, while the breath sounds and percussion note at the apex were normal, even when the hips were raised above the level of the thorax. The rounded dull area shifted a little with gravitation in this position, but hardly enough to convince either the late Dr. Martin (who consulted with me) or myself, of the diagnosis of pleural hydatid absolutely, for of course a large cyst in the convex surface of the liver would shift and alter the relations of the diaphragm to its parallel ribs by the weight of that heavy bulky viscus in the inversed position of the body. In any case, it was determined to introduce a trocar, which was done in the seventh intercostal space, when three pints of semi-purulent fluid escaped, showing plenty of hooklets on microscopic examination. Not much relief followed, and there was ill-defined dulness about the base of the right lung, with pleuritic stitches, and persistent high pulse and temperature, evidencing a local source of irritation in the pleura. Feeling convinced now that the case was one of pleural hydatid, I determined, with the concurrence of Dr. Martin, to remove it, as the only method of accomplishing a cure. On the tenth day after the first tapping, I made a free incision between the seventh and eighth ribs at the same position, and accordingly removed, without any difficulty, a large semi-decomposed hydatid cyst, broken into several fragments. The site was now beyond doubt, for I passed my little finger through the wound, and felt the round surface of the liver through the thin interval of the pleura and diaphragm. A few ounces of pus and broken-down fragments of hydatid followed the main cyst, and then rather a free discharge of venous blood, which, however, soon ceased. I left a piece of drainage tube in the pleura as a precaution. The patient experienced the greatest relief from the operation; the febrile symptoms and pain all left her, and the physical signs gave no evidence of any further foreign body in the cavity of the thorax; in fact, for several days everything promised a speedy recovery. I had the advantage of Mr. Fitzgerald's opinion on the case, and he concurred in the diagnosis and treatment. However, about a fortnight after the removal of the cyst, the patient began to complain again of dyspnœa and oppression of the chest, and on exploring the cavity of the pleura with an elastic catheter, to my great disgust I burst into another cyst, from which ran about ten ounces of perfectly clear hydatid fluid, swarming with echinococci in full vigour and vitality. I succeeded

in removing this cyst also, and irrigated the pleura frequently with weak solutions of iodine, with a view of destroying any lurking ova. Again great relief followed, but the poor patient was doomed to be the victim of the parasite, for soon heart distress commenced, exactly similar to that experienced by another case of pleural hydatid recorded by me in my pamphlet on this subject.

Sudden and alarming attacks of dyspnœa, generally ending in syncope, with cardiac murmurs terribly jumbled and confused. These symptoms increased in intensity till in one of them the poor lady died suddenly, the pleura and lung being apparently quite restored to their normal condition. Unfortunately there could be no post-mortem, but I have no doubt that the cause of death was hydatid of the pericardium, similar to that in my other patient, a preparation of whose heart is in the University Museum. It seems almost as if, when hydatids attack one serous sac, similar cavities are more attractive to them than the solid viscera. A very remarkable feature in these two cases was the extraordinary rapidity with which the new cysts developed in the pleura and pericardium, a few days only being sufficient to cause urgent symptoms in one case and death in the other.

The other case being one of hydatid of the lung substance had a more happy result. A girl nine years old was brought to me by her parents from a township in the northeastern district, about seventy miles from Melbourne. She was excessively emaciated with intense hectic and rapid pulse. Cough constant and violent, with expectoration of pus and fragments of cyst of horrible fetor. She was only able to breathe in one position, lying over and partially prone on the affected side. Any change from this caused alarming symptoms of suffocation, and as the poor child had been in the same state for over two months bedsores on the side were very distressing. A large trocar introduced between the fifth and sixth ribs gave exit to many ounces of fetid pus and fragments of cyst, giving great relief. After two days I enlarged the opening, and succeeding in removing the parent cyst, and left a piece of drainage tube in the nidus of the parasite which was frequently washed out with weak solution of Condy's fluid. In less than a month from her arrival the child returned to her home in perfect health, the wound having healed up from the bottom. I rather pushed on the treatment in this case as the symptoms were so urgent, but I am convinced that in the majority of cases one of the great factors of the constant success that attends them is to take time over the different steps of the operative procedure, so as to allow the lung time to expand, especially in adults.—*Australian Medical Journal*, April 15, 1881.

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Early Resection in Tuberculous Disease of the Joints.

Dr. KÖNIG, of Göttingen, in a paper read before the recent congress of German surgeons, ascribed only a limited value to early resection in tuberculous disease of joints. In a case of white swelling of the knee, with fistulæ and abscesses, he had obtained a cure by expectant treatment; and, in a case of coxitis, with large abscesses reaching to the middle of the femur, he had laid the parts freely open, and scraped the bone, without any disturbance of motor power. He had also acted in the same way, producing only slight impairment of motion, in a case of contraction of the adductor muscles, with a slight shortening of the limb. It was only when the patient's general condition was seriously implicated by the local disease, or when there was danger of the occurrence of this, that resection should be done without delay. In a large number of cases, resection might be done to a very limited extent, especially when the neighbouring joint was not implicated in the disease of the bone. Up to 1879 he had successfully treated in this way five cases of this kind, but afterwards he had twenty-one cases. Of these, the elbow-joint was affected in eleven cases; the hip in four;

the tarsus in six; and the knee in five. Ten recovered with useful limbs; in twelve, small fistulæ still remained; one died of erysipelas; and the result in one case was not known. Such diseases of bone usually revealed themselves by abscesses affecting the epiphysis, and by little pits on the surface of the bone, which denoted the commencement of fistulous tracks. An accidental opening of the joint in operating was harmless, under antiseptic protection. Cases might occur, though rarely, in which the morbid deposit in the bone could only be reached through the joint.—*London Med. Record*, June 15, 1881.

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Ozæna from Retained Secretion.

Dr. KENDAL FRANKS, in a paper read before the Dublin Biological Club, and published in the *Dublin Journal of Medical Sciences* for June, 1881, reports several cases of this not rare form of ozæna. He makes the following remarks upon this important subject:—

In treating of the subject of ozæna in general we must distinguish between two classes of morbid conditions in which fetid nasal breath is a prominent symptom. I exclude at once all cases in which the fetor is due to diseases in the deeper structures of the nasal cavity, as ulceration, caries of the bones, and abnormal growths, or when foreign bodies are the immediate cause.

But, independently of these, we find two distinct classes—one in which the ozæna is due to some lesion of the mucous membrane, most frequently the result of a dyscrasia; the second class comprising those cases in which there is no such lesion to which to attribute the disease, or in which an altered state of the mucous membrane is the result of the ozæna, and not its cause. This form has till the last few years been apparently quite overlooked, and it at present forms the subject of an interesting and animated controversy with our Continental brethren. It is to this latter form that I desire to call your special attention.

In all the standard works in which the subject of ozæna is discussed we find no allusion to this form of the disease. In Ziemssen's Cyclopædia, ozæna, the "Stinknase" of the Germans, the "punaisie" of the French, from its fancied resemblance to the smell of crushed bugs, is classed under the same heading as chronic rhinitis, and it has origin accordingly in a dyscrasia. "Acute rhinitis," Fraenkel tells us, "may pass into the subacute or chronic forms, and yet in the vast majority of cases this *only takes place in persons suffering under a dyscrasia.* Scrofula and syphilis are particularly liable to induce this transition. . . . We can distinguish two forms of chronic catarrh in the nose—the hyperplastic and the atrophic forms. They often coexist, but in most cases the atrophic form seems to be the result of the hyperplastic; at least it is most commonly found in old cases, and after the prolonged continuance of the hyperplastic." This is the order of events which we find in the pharynx: The three stages of chronic follicular pharyngitis are repeated in the nasal cavities, beginning as a chronic catarrhal pharyngitis, going on to hypertrophy of the follicles and mucous membrane, and finally, as the follicles wear out, the retrograde process taking place, and atrophic pharyngitis or pharyngitis sicca being the result. In the nose we have the same sequence—a chronic rhinitis is established. This is the result of an acute attack occurring in persons presenting other symptoms of dyscrasia; or "in persons having no dyscrasia, an acute rhinitis under bad care, continuance of the irritant, and under injurious influences, may relapse and finally terminate in the chronic form." This chronic form is at first of the hypertrophic kind, the mucous membrane being thickened and red, the secretion being of a muco-purulent character, and abundant in quantity. Morgagni relates a case in which it amounted to an ounce per hour. Should the mucous membrane be sufficiently tumefied to

cause obstruction of the nose, the secretions are retained and by degrees decompose, their composition giving rise to the fetor of ozæna. This, however, is not a very frequent occurrence during this stage of the disease. It is in the later stage, when the hyperplasia gives place to atrophy, that this symptom declares itself with all its unpleasant consequences. To this latter stage Gottstein applies the term, "chronic atrophic rhinitis." Robinson, in his recent work on "Nasal Catarrh," calls it "the dry form of chronic coryza." It seems to be brought about in the following way: During the hypertrophic stage there is deposited in the deep layer of the mucous membrane new formations of connective tissue and hyperplasia of the normal elements found there. This new tissue so presses upon the glands and follicles that their function is almost, if not entirely destroyed, and they consequently atrophy, or as the inflammatory products become organized and contract, they so constrict the glands that atrophy is the result. In proportion to the activity or intensity of these processes is the rapidity with which these changes occur; and hence, though we generally find the atrophic stage coming on at a late period after the hypertrophic stage has existed for years, still we need not be surprised if we find them coming on at a comparatively early epoch, so that the early stage of enlargement of the glands, thickening of the mucous membrane, and abundant secretion, may almost be overlooked. The appearance of the nasal passages and of the naso-pharyngeal space is very characteristic. The first thing we observe is an abnormal dryness of the mucous membrane in these regions. It has a glazed, parchment-like appearance, and is covered with inspissated mucus. This is very thick, and has a tendency to form crusts: "These," says Fraenkel,[1] "become firmly attached to the subjacent surface, perhaps owing to the large amount of albumen they contain, and by reason of their wealth in morphological elements (numerous epithelial cells) and their dearth of fluid constituents, are easily dried by the air passing over them." The tenacity with which these crusts cling to the mucous membrane beneath is exhibited when trying to remove them—sometimes they resist even a stream of water directed against them; and this tenacity is characteristic also, though in a less degree, of the dry pellicle of mucus which has not gone so far as to form crusts. The amount of secretion is very great, and is poured out as thick viscid mucus. It, however, rapidly dries, and if retained, as it will be unless proper means be used to get rid of it, it decomposes and gives rise to the characteristic stench. Fraenkel attributes the retention and drying of the secretion to the abundance of cells, the paucity of water, and its stickiness, but considers that defective cleaning of the nose aids in accomplishing the result: "This may be owing to habitual failure to blow one's nose, to feebleness of the expiratory current of air at the point affected (stenosis), or to diminished reflex irritability and an absence of a disposition to sneeze." Cohen, in his lecture on Naso-pharyngeal Catarrh,[2] takes a more histological view of the case when he attributes these conditions to a destruction of the epithelium. I need scarcely remind you that the epithelium lining the respiratory tract, with a few exceptions, is of the ciliated variety, and that the cilia have a continuous waving motion towards the exterior. In the nasal passages these cilia are continually brushing away excess of mucus. The diseased condition of the mucous membrane in chronic rhinitis causes destruction of numbers of the ciliated epithelia, and these are not reproduced. Hence this *potent* cause, according to Cohen, is absent, and retention is the result.

On removing the dried mucus and crusts from the surface, the mucous membrane has a remarkable appearance—it is reddened, the result of the cleansing

[1] Ziemssen's Cyclopædia, vol. iv. p. 138.
[2] Medical News and Library, October, 1879.

process, and looks dry and raw. Looking up into the naso-pharynx, by means of the rhinoscope, the same condition is seen, and tumefied masses of glands and follicles are visible on the vault and sides. The posterior portions of the turbinated bones present the same dry crusts and pledgets of mucus, and sometimes an entire turbinated bone is covered over as if with a false membrane. Anteriorly the same appearance is seen. The turbinated bones are distinct and normal in size, the mucous membrane covering them thin and atrophied, the secretion dry and encrusted. The symptoms which this condition give rise to are similar to those observed in the next class of ozænæ, to which I will now call your attention.

In this class of ozænæ no lesion is found, no disease of the mucous membrane, to which this disagreeable condition can be assigned; cases in which there is no previous history of a catarrh, or of a period at which there was an abundant odourless discharge. To account for such cases, to determine the true cause for a most pungent symptom, where to all appearance no disease exists, has been the endeavour of several astute observers in Germany. Several, among whom I may mention Gottstein, have attempted to class these cases under the third or atrophic form of chronic catarrh; but this is eminently unsatisfactory, as there has never been a second or third stage—and for other reasons to which I shall have occasion to refer again, I pass by this opinion as untenable. There still remain two views, which have been put prominentlyforward by their exponents. The first we shall consider is that propounded by Michel.[1] Recognizing the fact that the mucous membrane of the nose and pharynx is more or less healthy, and that its condition is quite insufficient to account for the ozæna, he lays emphasis on the exceeding abundance of the discharges. The mucous membrane of the nasal passages he considers is incapable of secreting so abundantly; for, if altered, it is on the side of atrophy. Whence then does the discharge come? Evidently not from the nose, but from the accessory cavities. The only cavities which could be the cause of it are the sphenoidal and ethmoidal sinuses, since anatomical considerations preclude the other sinuses from being the chief factors. Thus the opening of the antrum into the middle meatus of the nose is situated in the upper part of the internal wall, so that any flow of mucus from it could only be by overflow, and there are no evidences that the antrum is full of fluid. The frontal sinuses could not discharge fluid on to the upper surface of the middle turbinated bone, where it is seen to exist, as their openings into the nose are situated below the anterior extremity of this bone. Hence he concludes that a chronic catarrh exists in the sphenoidal and ethmoidal sinuses, which by retaining the secretions allows them to decompose, and by then discharging them over every portion of the nasal cavity gives rise to ozæna.

Now this theory, which is very plausible, is not sustained by facts. In the first instance, the grounds on which it is based are hypothetical, for the author has failed to demonstrate that any catarrh of these sinuses does actually exist; whilst, on the other hand, in a well-marked case of the disease, Hartmann, who made a *post-mortem* examination, could detect no abnormal condition of these cavities.

The second view enunciated is by Zaufal,[2] and the cases which I shall lay before you seem to me to support this view. He states the case thus: This class of ozæna, in which no lesion is found, affects children, and especially girls arriving at the age of puberty. The parents usually state that the fetor began to show itself within the last few months. The child finds great difficulty in blowing its

[1] Maladies du Nez et du Pharynx Nasal. Berlin, 1876. Traduction Franç. Par A. Capart. Paris, 1879.

[2] Aerztliches Correspondenzblatt aus Böhmen, No. 23, 1874.

nose, and the particles emitted are composed of horribly fetid, greenish crusts. The young patient is pale and dispirited, complaining sometimes of cephalalgia. The scrofulous diathesis is not specially marked; the nose is flattened, the septum is deflected to one side, so as to compress the lachrymal canal and cause epiphora. The alæ nasi are enlarged, but the nasal fossæ specially have a remarkable aspect to those who are well acquainted with their usual appearance. Instead of the normal narrowness of the passages between the septum nasi and the middle and inferior turbinated bones, a true cavern is seen to exist, due to the almost complete absence of these two turbinated bones, especially of the inferior, which are reduced to mere ridges, thus exposing to view the trumpet-shaped opening of the Eustachian tube, all the movements of which during phonation and deglutition are clearly seen. The whole septum and back of the pharynx are well exposed. Abundant semi-inspissated or dried crusts cover over the various parts, and if they be removed by irrigation the mucous membrane beneath is found to be reddened, but without any trace of ulceration. At the same time it seems to be atrophied. Over the inferior turbinated bone the erectile structure has disappeared, and a probe comes into immediate contact with the turbinated bone. This characteristic conformation may exist only on one side, or it may be hereditary, the mother who brings the child having a nose formed absolutely in the same way.[1]

Michel, who has seen this condition and recognized it, in holding to his own view, does not consider the malformation sufficient explanation of the disease; whilst Gottstein considers that the small size of the bones is part of the general atrophic process which goes on during the third stage of the catarrh. But then Michel's theory does not explain why the ozæna should be hereditary, why it appears always at puberty, or why it may sometimes be unilateral; and Gottstein does not state why in some cases of atrophic catarrh the turbinated bones do *not* share in the process.

On the other hand, Zaufal maintains that this excessive arrest of development explains these points, as well as accounting for the occurrence of ozæna. The ozæna is simply the result of the size of the nasal fossæ. The mucous secretions are no longer driven forwards little by little, as takes place in the normal condition when the expired air plays on the turbinated bones. The air goes out more slowly; the mucus, no longer drawn with it, retains its position and decomposes. Moreover he points out that there is not an abnormal increase in the secretion, as stated by Michel, but that it is only apparent, and results from the fact that the patient cannot blow his nose. The disease does not make itself apparent in early life. The child is born with rudimentary turbinated bones. During the first few years, the nose being very small, the disease does not declare itself; but, as the child grows, the bones of the face gradually develop, the turbinated bones remain stationary, and at or about puberty ozæna appears.

The retention, drying, and decomposition of the secretion on the surface of the mucous membrane reacts in an injurious way on this membrane, with whose function it interferes, and thus causes it to undergo a process of atrophy more or less pronounced, so that this atrophy, instead of being the cause is in reality the consequence of the ozæna.

Blindness after Glaucoma.

KUBLI reports the following case of total blindness from glaucoma simplex, in which vision was restored. The patient, a man, aged 21, stated (*Klin. Monats. für Augen.*, Oct. 1880) that his sight had been steadily failing for twelve months,

[1] Hayem. Revue des Sciences Médicales, April 15, 1880.

with occasional appearance of a coloured ring around the light, and that two months ago he had suddenly become totally blind. No other symptoms were complained of. On admission, both eyes presented T + 2, glaucomatous cupping of the disks, total absence of perception of light, oval dilatation of the pupils. The pupils gave no reaction to light, but contracted with movements of convergence, and were contracted strongly by eserine. Iridectomy upwards was performed on each eye. Perception of light returned the following day. Vision ultimately reached 3-100; whether in both eyes, or in one only, is not stated. [The strong contraction of the pupils by eserine is worthy of note in connection with the exceptionally good result. There is no reason to believe that such contraction in a glaucomatous eye indicates that the angle of the anterior chamber, though compressed, has not reached the stage of solid adhesion.—*Rep.*] —*London Med. Record*, June 15, 1881.

Operation for Trichiasis.

FÆSCHE recommends (*Klin. Monats. für Augen.*, xix. Jahrg., January) the following modification of Arlt's operation for trichiasis. In the first act, the upper lid is split into an anterior and a posterior part, as in Arlt's operation. In the second act, the anterior part is pushed up on the posterior about 1-12th to 1-10th of an inch, and fixed with three sutures on the tarsal cartilage. The middle of the three sutures is applied transversely, and includes about 1-8th of an inch, the other two sutures are vertical. The raw surface thus left, in place of being allowed to heal by granulation, as in Arlt's method, is covered with a thin strip of epidermis taken from the upper arm with a razor. With proper care, this transplanted strip heals in its place in twenty-four hours. Immediately on the eye the author lays a protective disinfected with salicylic and boracic acid, then a fold of lint similarly disinfected, over this salicylic cotton-wool, and over all, carbolized gauze. The first dressing may remain on for forty-eight hours. The author has used this method in twelve cases, and is thoroughly satisfied with it.—*London Med. Record*, June 15, 1881.

Midwifery and Gynæcology.

The Broad Ligament and Pelvic Cellulitis.

The anatomical and pathological relations of the broad ligament to the cellular tissue of the pelvis have recently been occupying the attention of several distinguished French authorities. The internal female organs lie very conspicuously in the pelvic cavity, and are so characteristic in outline as to be fairly familiar to every student. Much has been written on the nature of pelvic cellulitis and pelvic peritonitis by the greatest authorities on the diseases of women, and it is easy to beg the question, and to accept the doctrine, not as yet entirely discarded, that injuries and diseases of the vagina and uterus may set up forms of inflammation in the cellular tissue of the broad ligament, ending in the formation of an abscess within that structure. The layers of this ligament, closely applied to each other between the Fallopian tube and the ovary, diverge widely below the ovary; and the anterior continues forwards, to form the serous investment of the bladder, the posterior passing backwards as the peritoneum forming Douglas's pouch. It is a common idea that the pelvic cellular tissue fills up the lower part of the broad ligament, where the peritoneal layers are diverging towards the bladder and rectum, and, passing upwards, forms a thin but distinct stratum of cellular tissue between the folds of the ligament as far as to its very uppermost limit

below, or rather around, the Fallopian tube. If this were really the case, the formation of abscess between the folds of the broad ligament would be of very frequent occurrence in pelvic cellulitis.

The presence of a distinct layer of cellular tissue in the interior of the ligament is, indeed, taught by the authors of one of the best and most widely studied French text-books; for in Cruveilhier and Sée's *Traité d'Anatomie*, it is written: "The broad ligaments are formed by two peritoneal folds and by an intermediate layer of cellular tissue, through which pass the numerous vessels and nerves supplying the uterus and ovary, as well as a quantity of muscular fibres derived from the uterus." Whatever may have been the views of past authorities on the anatomy of the ligament, they almost universally admitted the frequency of abscess within it. Dr. Matthews Duncan has shown, in his work *On Perimetritis and Parametritis*, that such a condition is "very far from being common." The error, he believes, arose from the frequency of the presence of pus within the veins and lymphatics of the ligament, in fatal cases of puerperal fever. At necropsies, these purulent collections were taken for circumscribed abscesses.

MM. A. Guérin and Lebec have recently made the broad ligament an object of special study, and the fruits of their researches will be found in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, April 15th. They insist on the selection of perfectly normal adult bodies for the dissection of these parts, subjects not easy to obtain; for slight attacks of adhesive inflammation in the parts around the internal organs are very common. In detaching the peritoneum from the bony walls of the true pelvis, a layer of cellular tissue is pulled up with it; this layer, almost as aponeurotic as the pelvic fascia itself, they call the fascia propria. This layer seals up hermetically the outer extremity of the broad ligament, which lies entirely below the fimbriæ of the Fallopian tube and the ovary. Another layer of dense cellular tissue is given off horizontally from the fascia propria, and forms a complete floor to the broad ligament. Hence the interior of this ligament is bounded by the uterus internally, by the tube above, and by the fascia propria below and antero-externally. The amount of cellular tissue between the layers of the ligament is very small, and cannot be said to constitute a "layer." By carefully scratching a hole in the anterior layer of the ligament, a few grammes of coloured fluid or tallow may be injected between the layers, care being taken to stop the injection the moment that slight resistance is felt, otherwise the material will force itself under the peritoneum to an indefinite extent. When properly injected, the real cavity of the broad ligament, thus produced, measures a little over an inch vertically, somewhat less laterally, and not quite half an inch antero-posteriorly. Its boundaries will be those given above as bounding the broad ligament, except that it does not extend so high as the tube; and it will be found to be cut off from the walls and the lower part of the pelvic cavity by the fascia propria. Now, a parametric phlegmon, long held to be entirely situated between the layers of the ligament, forms a mass far bulkier than the cubic capacity of the cavity of the ligament.

It might, however, according to older theories, be believed that abscess could actually begin between the layers of the broad ligament, and readily extend lower and lower into the pelvic cellular tissue below. Guérin and Lebec deny that this extension of suppuration can occur, as the horizontal layer of their fascia propria seals up the lower limits of the ligament. The development and extension of inflammatory deposit in the pelvic cellular tissue must be traced to their sources; in short, to the lymphatic vessels.

The lymphatics of the vagina empty into larger vessels, which join each other at the level of the superior *cul-de-sac*—the level, in fact, of the body and the cervix of the uterus. Under the cervical mucous membrane is a very dense lym-

phatic plexus, which communicates with the large vessels of the upper part of the vagina. From these united vessels, one or two large trunks pass outwards towards the pelvic walls, running along the base of the broad ligament, but entirely below it, and therefore separated from its cavity by the impermeable flooring of fascia propria. The trunk-lymphatics ultimately empty themselves either into one single gland, or else, more commonly, into a series of glands situated on the inner aspect of the ischium, close to the obturator foramen. From thence, lymphatic vessels ascend behind the pubes, and directly communicate, at the level of Poupart's ligament, with vessels from the thigh. They then ascend, in front of the peritoneum and behind the rectus and its sheath, and follow the epigastric vessels upwards. The lymphatics of the body of the uterus, on the other hand, actually pass between the layers of the broad ligament on their way to the lumbar glands, but they pass in its very uppermost part, quite above its cavity.

The course of the lymphatic vessels from the vagina and cervix explains certain symptoms frequent in pelvic inflammation, symptoms which cannot be logically referred to abscess in the broad ligament, but which represent what M. Guérin terms *adéno-phlegmon juxta-pubien*. Postpubic lymphangitis will sound a trifle less objectionable to British ears; but rather let us banish such terms, and say that, according to M. Guérin, pelvic cellulitis (evidently the same thing) begins as lymphangitis, produced by any severe irritation to the vagina or cervix; then the large lymphatic trunks below the broad ligament become involved; the gland or glands close to the obturator foramen enlarge, and may be detected on digital examination by the vagina; and the inflammation may extend to behind Poupart's ligament, or even form a hard mass palpable through the rectus, and following, from the groin upwards, the course of the epigastric arteries, as in a case described by M. Rigal. When the morbid process extends, the tissue round the lymphatics may become indefinitely involved, and abscess form at any point along the track above described. This condition represents the "parametritis anterior" of some authors. Hence the ill-defined extensive hardenings and the scattered collections of pus frequent in pelvic cellulitis. In short, says M. Lebec, the anatomy of the lymphatics of this part thoroughly explains the clinical symptoms of pelvic cellulitis. The structure of the broad ligament proves how rarely this affection can start from that appendage of the uterus; so that we may say, with M. A. Guérin, that the clinical symptoms of abscess situated actually and primarily between the layers of the broad ligament have yet to be discovered. —*Brit. Med. Journ.*, June 4, 1881.

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Obstetrical Auscultation.

In a clinical lecture (reported in the *Revue Médicale*, No. 7) Prof. DEPAUL, after adverting to the history and progress of obstetrical auscultation, to which no one has contributed more than himself, proceeded to explain to his class how best to perform it. The woman should be laid on a bed on her back—for although she can be auscultated while standing, this is very inconvenient, and may give rise to serious mistakes. The abdomen should be exposed free from all garments, especially among common women, whose coarse clothing might give rise to difficulty in the perception of sounds. In private practice it may be possible to make an examination over a chemise of fine linen. The physician must place himself on her left and right side alternately, so as to make the examination of both sides, the most complete silence being observed. The auscultation must be made by means of the stethoscope; and after having tried the various forms of this instrument, Prof. Depaul has finally adopted one of medium length, having its auricular surface slightly excavated and the edges of the opposite aperture sufficiently thick to prevent disagreeable or painful sensations being

caused. The wall of the abdomen and that of the uterus must be somewhat depressed, but only moderately so, as any strong pressure would modify the sounds to be perceived, and especially the *souffle*. Some women refuse to allow of auscultation, but a little persuasion and explanation of the objects in view usually overcome their objections. There are others, again, who have the abdominal surface in a state of hyperæsthesia, the slightest touch, according to their account, causing pain. Moreover, in morbid conditions of the respiratory organs, the various pathological sounds produced may render the uterine auscultation difficult.

It is towards the third month and a half, or the fourth month, that auscultation is of service; and the sounds produced are of two kinds, those proceeding from the pregnancy itself, and those which are independent of it. Of the first, there are the uterine *bruit de souffle* and the double sound resulting from the contractions of the fœtal heart, the fœtal *souffle* dependent upon the circulation of the fœtus, and the uterine *souffle* dependent upon the maternal circulation. Finally, there are sounds due to the active movements of the fœtus, as the *bruits de choc*, which may be both perceived by the hand and heard by the ear. We may also perceive by palpation, as well as by the ear, a friction sound (*bruit de frottement*). As to the sounds independent of pregnancy which are heard in women with child, it is of importance not to confound them. They may arise from the constriction of the muscles of the abdomen, or from the vesicular expansion of the lungs, which in some women extend from above downwards. So also the sounds produced by the beating of the heart of the mother may be transmitted to the cavity of the abdomen, and these are to be distinguished from those of the fœtus by their isochronism with the pulse. Finally, there are the pulsations of the aorta, and the sounds due to the presence of gas in the digestive canal, especially in nervous and impressionable women.

The maternal *souffle* has been designated by various names, but Prof. Depaul prefers that of "uterine *souffle*," given it by Paul Dubois; and although it is not the most important of the sounds inherent to pregnancy, it is very desirable that it should be known. It is a *souffle* without pulsations isochronous with the maternal pulse. It is more or less strong and intermittent in the great majority of cases, having a certain interval between two successive *souffles*. It is sometimes musical or sibilant, analogous to the sound produced by a large bass-string —at least, these are the typical sounds, of which, however, numerous shades exist, and which may be modified at intervals of a few instants in the same subject. There is no part of the uterus at which this may not be heard, but still there are generally three points of predilection—at the right and the left (sometimes both sides in the same woman), and at the fundus. This uterine maternal *souffle* may sometimes be absent on the first examination, for it is capricious, and not being constant, like the beatings of the heart, it may disappear and reappear occasionally. It is heard from the fourth or fifth month until the end of pregnancy. Nearly everybody is agreed in admitting that this sound is produced within the interior of the walls of the uterus, and that its mobility is due to the movements of the child, which compress this or that artery according to the position it occupies at the moment.—*Med. Times and Gazette*, July 23, 1881.

Pilocarpin in the Treatment of Puerperal Convulsions.

In the *British Medical Journal* for April 2, 1881, Dr. A. HAMILTON reports the following interesting case.

M. J. E., aged 22, domestic servant, a primipara, and previously healthy, was suddenly seized with convulsions. When seen by me, she was in a violent gen-

eral convulsion, which had continued for two hours. On examination, I found her to be in the sixth or seventh month of pregnancy, the os rigid and undilatable, and the urine loaded with albumen. The convulsions continuing, and it being impossible to give anything by the mouth, I injected hypodermically, six hours from her seizure, fifteen minims of a two-per-cent. solution of pilocarpin. This was followed in about two minutes by very profuse salivation and perspiration; the convulsions ceased, and strong uterine contractions soon became evident. After an interval of an hour, she had seven fits in quick succession. Mr. Taylor then saw the patient with me; and, with his concurrence, I gave, two hours after the first, a second injection of pilocarpin. The salivation following this was so copious as to threaten suffocation, and, although the convulsions became weaker and less frequent, the breathing was so much embarrassed as to make the patient's recovery almost hopeless. Pains, however, became stronger and more frequent; the fœtus being expelled ten hours after the last injection. The woman remained unconscious for two days, and then recovered rapidly.

In puerperal convulsions, I have found the best treatment to be dilatation of the os uteri, with or without chloroform, and speedy delivery; but in the foregoing case, one of the worst I have ever seen, the convulsions seemed to be so much controlled by the pilocarpin, that I shall certainly use it again in such cases. I may also say that I have used jaborandi with very good results in cases of Bright's disease and spasmodic asthma.

Medical Jurisprudence and Toxicology.

Cadaveric Alkaloids.

The very serious question, from the medico-legal point of view, of the spontaneous development of cadaveric alkaloids and their toxic power, was first raised by M. Selmi of Bologna. After many vicissitudes of alternate favour and discredit, this subject has been revived in France by the researches of MM. Brouardel and Boutmy, in Germany by those of M. Husemann, and in Italy by the *résumé* of all the information on the subject recently published by the original discoverer, M. Selmi. These researches are succinctly summarized in the *Gazette Hebdomadaire*, and their results given in a concise form as follows: Last year, at the Congress of Rheims, M. Boutmy read, in his own and M. Brouardel's name, a paper which excited much attention, and in which the joint authors, after having shown that the existence of cadaveric alkalies has been erroneously contested, insisted on the toxic properties of ptomaïnes, pointing out that the activity of some of these substances is in no degree inferior to that of the strongest poisons. They demonstrated that there are many distinct ptomaïnes, each showing special chemical and physiological characteristics; and noted the following fact, of which the importance is clear: that one of these ptomaïnes, extracted from a corpse which had been eighteen months in the Seine, had all the properties of veratrine. Since the time they read this paper, its authors have followed up their researches by devoting themselves to the determination of the differences, either chemical or toxicological, which might prevent the confusion between the poisons formed by putrefaction and the venomous substances absorbed during life.

One of the first results of their labours is a paper presented to the Académie de Médecine on May 10th, in which they point out the property of the ptomaïnes to bring back the ferricyanide of potassium to the condition of ferrocyanide, which is capable of forming Prussian blue with, for instance, the chlorides of iron. The

same reagents, however, in presence of pure alkaloids or extracts from a corpse after poisoning, do not undergo any change. These researches are being continued, and doubtless new facts will corroborate the facts already obtained. MM. Bergeron and l'Hôte, who have been studying the toxic effects of amylic alcohol, point out that, this alcohol being employed in the extraction of ptomaïnes, it becomes a question whether the toxic action of these alkaloids may not be partly due to amylic alcohol, frequently mixed with butylic alcohol, used to extract them. MM. Brouardel and Boutmy, however, state that they have not fallen into the probable cause of error here pointed out. Husemann (*Les Ptomaïnes et leur Signification en Chimie Légale et en Toxicologie*) has taken up the study of ptomaïnes from another point of view. He has felt doubtful whether these substances may not account for the poisonings by alimentary substances and putrid infections. The researches of Hoppe-Seyler, Schmidt, Schmideberg, and Panum have shown, in alimentary substances in a state of putrefaction, the presence of alkaloids analogous to ptomaïnes (Schmidt's and Schmiedeberg's sepsine and Panum's putrid poison). Husemann concludes that, as a matter of fact, the majority of the accidents observed in persons who had partaken of food in a state of commencing putrefaction are to be imputed to these alkaloids, which are of similar constitution to ptomaïnes (Schmidt's *Jahrbücher*, 1880). M. Selmi, in his recent work on the subject (*Les Ptomaïnes, les Alcaloides Cadaveriques, et les Produits Analogues des certaines Maladies dans leurs Rapports avec la Médecine Légale*), has collected his former researches on ptomaïnes and the method of distinguishing them from the true alkaloids, and has added a paper on the technical method of extracting ptomaïnes, and on the chemical differences which differentiate them from colouring and resinous matters. An interesting paper relating to the toxic effects produced by the extractive substances obtained from the urine of certain patients will also be found in this volume.—*British Med. Journal*, July 30, 1881.

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The Influence of Ammonia in Chloroform-Poisoning.

Dr. SIDNEY RINGER, in a paper published in the *Practitioner*, June, 1881, p. 437, shows, by experiments, the rapid influence ammonia exerted in a frog's heart, whose action had been arrested by an overdose of chloroform. The chloroform evidently paralyzes the heart's muscular substance, affecting the ganglionless and nerveless portion of the ventricle exactly in the same way as any other part of it. [In the *Medical Times and Gazette*, May, 1871, p. 616, Dr. Neild reports a case of apparent death from chloroform inhalation, which recovered from the alarming state of syncope after four half-drachm injections of liquor ammoniæ into the median cephalic vein.—*Rep.*]—*London Med. Record*, July 15, 1881.

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Poisoning by Potassium Bichromate.

Dr. WM. A. M'LACHLAN reports the following case of this rare form of poisoning:—

James W., aged 60, of spare build and nervous temperament, followed the occupation of a goods clerk. He had been complaining for some time with a dull pain in the hypochondriac regions, and had been doctoring himself with a variety of medicines. One of his fellow-workmen suggested to him a trial of bichromate of potash and rhubarb. Acting on his advice he procured these at a registered druggist's. While returning home with his medicines, he met in with a friend, and adjourned to his neighbour's house. Here he unfolded the packet of bichromate of potash, and after explaining its supposed utility, took fully three drachms

of it. He dissolved it in cold water, then drank the solution. This was shortly after 3 P. M., on 9th March, 1880. He had not taken it more than one-quarter of an hour, when the symptoms of an irritant poison began to manifest themselves in the form of excessive vomiting and purging, accompanied with violent abdominal cramps. At this time, the woman of the house he had entered gave him an emetic of common salt and plenty of water to drink. At 5 P. M., when I was called, I found him reclining on a chair moaning and complaining of cramps in the abdomen and lower limbs. The surface of his body was cold. His hands and fingers were shrivelled, wrinkled, and dusky, much like those of a person in the advanced stage of cholera. His face and lips were very dusky. His beard was coloured chrome yellow. The mucous membrane of his mouth and throat was dark coloured. His breath was cold and his voice very feeble and tremulous. He was vomiting occasionally tough mucus mixed with blood. The mucus was very tenacious, and was with considerable difficulty removed from the mouth. His thirst was excessive. Pulse very weak and barely perceptible at the wrist. Respiration hurried. Urine suppressed. Mental faculties unimpaired.

Treatment.—He was covered up in bed, with hot blankets and hot jars placed in close proximity to him. Had olei ricini ℥ss at once. Then a dessertspoonful of brandy in hot water every quarter of an hour; also, water slightly acidulated with citric acid *ad lib.*, and milk gruel occasionally.

10 P. M. Much better. Slight perspiration on surface of body, trunk much warmer. Extremities still cold and cramped. Pulse 120 per minute, feeble, regular. Vomiting much less. Mucus much less tenacious. Thirst less; pain in abdomen less. Urine suppressed. Respiration still accelerated. Continue same diluents and give the brandy hourly.

March 10, 9 A. M. Has passed a restless night, slept very little. Vomiting almost gone. Cramps in the extremities still continue, the interval between them is much longer than last night, and the spasms themselves are not so prolonged, nor is the pain of them so severe. Thirst is not so excessive though still considerable. The heat of the body is much better. Pulse 120, better in volume, regular, though still feeble. Respiration more equable, though occasionally there is slight irregularity in the movements of the chest. Urine suppressed. Diminish the brandy to one teaspoonful every hour. Also to have liq. bismuth. ℥j every hour. Continue same diluents.

8 P. M. Patient is still better. Pulse 120 per minute, of better volume, regular. Respiration better. Cramps of extremities gone. There is still pain over the epigastric and umbilical regions. Vomiting almost gone. Urine suppressed. Continue treatment.

11*th*. 9 A. M. Patient still improving. Slept moderately well during the night. Vomiting entirely gone. Abdominal tenderness much less. Pulse 120 per minute, much stronger. Conjunctiva coloured a deep yellow. About one and a half ounces of urine have been passed since last visit—it is coloured chrome yellow. To have milk diet only. Also the following medicine: ℞. Pot. cit. gr. xxx; spt. æth. nitrosi, ℥ij. Sig.—To be taken every three hours.

12*th* Still better. Urine abundant—still coloured deeply yellow. Bowels normal. Can take liquid food, but finds his digestion very weak. Pulse 76 per minute, still feeble. Respiration normal.

It would thus seem that the specific remote effects of this salt not only manifest themselves by producing yellow discoloration of the conjunctiva, but also by causing enervation of the kidney, with suppression of urine, which in this case was well marked.—*Glasgow Med. Journ.*, July, 1881.

MEDICAL NEWS.

The International Medical Congress.

The recent meeting of the International Medical Congress in London, the seventh of the kind, from the reports which have reached us, appears to have been an unqualified success; the weather was favourable, the arrangements carefully made, the attendance very large (between three and four thousand), the addresses excellent, and the proceedings in the Sections distinguished by papers of unusual interest and importance. Upon another page will be found a brief but graphic account, from the pen of the Editor of this Journal, of the proceedings, and of the entertainments given to its members, from which it appears that the occasion was diligently and enjoyably improved. By a judicious arrangement, the committee obtained in advance abstracts of papers to be read; and these, in English, in French, and in German, were published in a portly volume of over 700 pages, and distributed on the first day of the session. It not only formed a valuable guide to the discussions, but also affords a very fair *résumé* of the intended proceedings. The meetings commenced on Aug. 2d, and continued with daily sessions until Aug. 9th, in accordance with the following programme:—

Tuesday, Aug. 2. 10 A. M. to 6 P. M.: Registration of Members. 3 to 6 P. M.: Informal reception at the College of Physicians. 9.30 P. M.: Conversazione given by President of Odontological Society to the members of Odontological Section.

Wednesday, Aug. 3. 11 A. M.: General Meeting at St. James's Hall; Chairman Sir William Jenner. The Prince of Wales will declare the Congress open. Inaugural Address by Sir James Paget. 3 P. M.: Meeting of the Sections. 4 to 7 P. M.: Musical Promenade in Royal Botanic Society's Gardens. 4.30 P. M.: General Meeting. Address by Professor Virchow. 9.30 P. M.: Conversazione at South Kensington Museum.

Thursday, Aug. 4. 10 A. M. to 1 P. M.: Meetings of Sections. 1.30 P. M.: Visits to Hospitals. Demonstration of Natural History Collection at South Kensington by Professor Owen. 2 P. M.: Meetings of Sections. 4 P. M.: General Meeting. Reading of the late Professor Raynaud's Address by his friend Dr. Féréol. 6.30 P. M.: Banquet given by the Lord Mayor at the Mansion House.

Friday, Aug 5. 10 A. M. to 1 P. M.: Meeting of Sections. 12.45 P. M.: Visit to Mr. Penn's Works at Greenwich. 1.30 P. M.: Visits to Hospitals. Demonstration of Natural History Collection at South Kensington by Professor Owen. 2 P. M.: Meetings of Sections. 4 P. M.: General Meeting. Address by Dr. Billings. 8 P. M.: Conversazione at the Guildhall. Soirée at the Royal College of Surgeons, free to members of the Congress.

Saturday, Aug. 6. 10 A. M. to 1 P. M.: Meetings of Sections. 12.15 P. M.: Excursion to Croydon Sewage Farm. 1.45 P. M.: Excursion to Folkestone—Unveiling of Harvey Memorial Statue. 2 P. M.: Excursion to Hampton Court, and Garden Party at Normansfield, given by Dr. Langdon Down. 4 to 7 P. M.: Reception at Kew Gardens by Sir J. D. Hooker. Garden Party at Hampstead,

given by Mr. and Mrs. Spencer Wells. Garden Party at Wimbledon, given by Mr. and Mrs. Saunders. 6.30 P. M.: Dinner at Richmond, given by the United Hospitals Club. Reception by the Foreign Secretary to the Foreign Members of the Congress.

Sunday, Aug. 7. 10 A. M.: Full Choral Service and Sermon in Westminster Abbey. 3.15 P. M.: Full Choral Service, and Sermon by Canon Liddon, in St. Paul's Cathedral. 1.30 P. M.: Excursion to Boxhill. The Gardens of the Royal Botanic Society, Zoological Society, and at Kew and Hampton Court, will be open to Members of the Congress.

Monday, Aug. 8. 10 A. M. to 1 P. M.: Meetings of the Sections. 11 A. M.: Visit to the Docks. 2 P. M.: Meetings of Sections. 4 P. M.: General Meeting. Address by Prof. Volkmann; Garden Party by Lady Burdett-Coutts Bartlett. 6.30 P. M.: Dinner given by the Masters and Wardens of the Society of Apothecaries. 9.30 P. M.: Conversazione given by the Royal College of Surgeons.

Tuesday, Aug. 9. 10 A. M. to 1 P. M.: Meetings of Sections. 2 P. M.: General Meeting. Address by Professor Huxley. 4 P. M.: Visit to the Crystal Palace; Informal Dinner, and Display of Fountains and Fireworks, etc.

In this connection, and as an instance of medical journalistic enterprise, we note that the *Boston Medical and Surgical Journal* for August 18th, but issued two days in advance of date, contains in full the opening address by the President, Mr. James Paget, the Introductory Remarks delivered upon the opening of the Section in Pathology by Samuel Wilks; on Surgery by John Eric Erichsen; in Obstetrics by Alfred McClintock; and in Anatomy by Prof. W. H. Flower; and an interesting letter from London on the subject of the meeting; altogether forming a most interesting, timely, and valuable issue of this representative Journal.

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The Sanitary Condition of Summer Resorts.

The Isle of Wight, sometime known as the Garden of England, but according to the *Practitioner* now deserving of a much less complimentary and euphemistic title, as a summer resort is under a cloud. It appears that the Local Government Board, having had its attention directed to the matter, resolved to subject the sanitary administration of the island to investigation, and delegated the task of inquiry to an energetic health officer, Dr. Ballard. From the official report of this observer, just made public, it appears that this particular garden-spot is one to be carefully shunned by all summer tourists who have the slightest regard for their health. The *Practitioner*, in a very forcible editorial upon this subject, based upon Dr. Ballard's report, says that it appears that "the sanitary affairs of the island are in the utmost state of confusion, and that the authorities, who should be responsible for keeping the island free from those accidental sources of impurity which necessarily accompany houses and communities, have done nothing of the sort, or done so only in the incompletest fashion; and that the island has become defaced by conditions detrimental in the highest degree to its own inhabitants and peculiarly detrimental to the health and well-being of visitors."

One of the earliest and most important results of such neglect of proper sanitary regulation, of which Wight is by no means an isolated example, is the pollution of the water supply, and this is the very subject which must be kept constantly and prominently before the authorities of small out-of-the-way communities periodically subjected to overcrowding by summer visitors. The bill of indictment against Wight is clear, and carries conviction with it; the report of Dr. Ballard not only should be read by sanitarians and physicians, but it has its lesson as well for every summer tourist. That the Isle of Wight is peculiar among summer resorts in England or the Continent in its defective sanitation, no one will assert; they may "do these things better in France," but we have serious doubts whether there are many popular places of resort where in the details of scavengering, practice will at all approach theory, even in the native home of sanitary science. The earnest recommendation made only a short time ago, by the editor of the *British Medical Journal*, to tourists to carry their water supply with them, or at least to drink nothing while travelling on the continent except Apollinaris, is still fresh in our minds, and emphasizes the point that we wish to insist upon.

If we inquire further and ask the sanitary status of similar places upon the American continent, we find that the mushroom growth of many of our summer resorts has, almost without exception, effectually militated against anything like intelligent hygienic administration. The summer visitors take the ordinary hygienic conditions for granted on account of the great natural advantages principally in the way of ventilation, which usually are found at localities selected for summer habitation; if they are taken sick the water disagrees with them, and they go away, blaming their weakness rather than the water; but others come to fill their places probably to go through a like experience. In an excellent report on the Drainage of Summer Hotels and Boarding Houses,[1] Mr. Ernest W. Bowditch, an engineer of Boston, gives the results of investigations into the sanitary condition of one hundred and fifty of these "health resorts" (*lucus a non lucendo*), which were found to be almost without exception unsatisfactory and liable to become at any time breeding places for epidemics of typhoid fever, diphtheria, and other infections diseases. These New England hotels and boarding houses are the prototypes of others all over the country; no doubt in many places the conditions are even worse, for these examples, it should not be forgotten, are taken from a section of the country noted for its thrift and cleanness. At Newport some years ago, matters became so serious that the inhabitants were forced to adopt prompt measures for self-protection, which fortunately resulted in the establishment of a very efficient system of sanitary inspection and control

[1] First Annual Report of the State Board of Health, Lunacy, and Charity of Massachusetts, 1879. Supplement containing report and papers on Public Health, Boston, 1880.

which now serves as a model for other places of resort.[1] Some portions of Long Island are notoriously unhealthy. New Jersey has a large number of watering places upon its coast, which are visited by enormous numbers of people every year. Atlantic City and Cape May in particular are poorly drained, and still retain the primitive method of water supply, by rain water collected from the roof, left as regards cleanliness to individual enterprise without any attempt at the much-needed systematic filtration. There are also some surface-wells which are occasionally resorted to by the poorer classes. At the former place during the past summer some activity has been manifested, and a system of sanitary inspection and scavengering projected, which we hope will be freely matured and actively in operation before next season. Fair Point, Chautauqua, was recently in such bad sanitary condition as to attract public attention, on account of the presence of a large number of persons dwelling in tents and temporary structures. Under the efficient direction of the very intelligent administration, acting under the suggestion and advice of Prof. Lattimore, we believe this has been largely corrected, but there is yet much to be done to make it what its natural advantages entitle it to be. We need not pursue this subject further by multiplying illustrations, but would direct professional and public attention to the drainage, sewage, and water supply of our places of summer resort as a subject worthy of earnest and careful consideration. In 1875, Dr. Henry Hartshorne read before the American Public Health Association a brief paper entitled a "Preliminary Report on the Sanitary Conditions of American Watering Places,"[2] and urged that "the same principles of sanitary science and practice, essentially, are capable of illustration in camps and in places of summer resort" owing to the great periodical increase in the population at places where everything is temporary, as it were, and migratory, not permanent. We mention this matter particularly at the present time, in order that the intelligent and enterprising proprietors of places of summer resort may see the necessity of satisfying popular opinion in this matter of sanitary reform, and in putting their houses in order for next season they may adopt the latest methods of scavengering and the greatest precautions to insure uncontaminated water supply. We hope that they will not forget to invite a thorough examination by competent authorities of their premises, and in next season's circular, we shall be glad to see due prominence given to the announcement of the satisfactory sanitary condition of the house, with the examiner's certificate appended.

[1] See an article by Horatio R. Storer, M.D., on "The New Principles of Protective (Private) Sanitation in its Relations to Public Hygiene;" Transactions American Medical Association, vol. xxx., 1879, p. 357. Also one on "Sanitary Protection in Newport;" Public Health Papers and Reports, vol. vi., Boston, 1881.

[2] Public Health Reports and Papers, vol. i., presented at the meeting of the American Public Health Association in the year 1874–5, N. Y., 1876.

International Medical Congress, London, August 2—9, 1881.

(SPECIAL CORRESPONDENCE OF THE MEDICAL NEWS AND ABSTRACT.)

The seventh meeting of the International Medical Congress was formally opened in St. James's Hall, London, on Wednesday morning, August 3d, by his Royal Highness, the Prince of Wales, in the presence of about 2500 members. The Prince of Wales, on his arrival at the Hall, was received by Sir William Jenner, Sir William Gull, Sir James Paget, Mr. Mac Cormack, and the other members of the committee, and conducted to the platform; a little later the Crown Prince of Russia entered and took a seat on the left of the chairman. The large hall was crowded to its utmost capacity with eminent members of the profession, gathered together from every part of the world. Among the many distinguished persons present we recognized Virchow, Langenbeck, Charcot, Esmarch, Flint, Cardinal Manning, the Archbishop of York, the Bishop of London, Volkmann, Lister, Pasteur, Brown-Séquard, Fordyce Barker, Ranke, J. S. Billings, Kister, Snellen, Warren Bey, Sir William Gull, Spencer Wells, J. C. Hutchinson, Sapolini, and many others of equal prominence.

Sir William Jenner, K.C.B., President of the Royal College of Physicians, as chairman *ex-officio* of the general committee, called the Congress to order in a short address, in which he offered the acknowledgments of the profession to the Prince of Wales for the support which his Royal Highness had accorded to the Congress, and then referred to some of the objects which were to be attained by such an international gathering as was then assembled. He concluded by referring to the incessant and arduous labours which had devolved upon Mr. William Mac Cormac, the Hon. Secretary-General, in the devising and executing the preliminary arrangements for this Congress, and said that every member owed to Mr. Mac Cormac a deep debt of gratitude, which ought to be most heartily acknowledged.

Mr. William Mac Cormac, the Hon. Secretary-General, read the report of the Executive Committee, which contained a sketch of the origin of the meeting and of the steps that had been taken to insure to it a truly international character.

Sir J. Risdon Bennett, Chairman of the Executive Committee, then offered a resolution accepting the official list of officers nominated, and appointing Sir James Paget, Bart., President of the Congress, a number of honorary vice-presidents, including as American representatives Drs. Billings of Washington, Barker of New York, Bigelow of Boston, and Flint of New York, with Mr. William Mac Cormac, Hon. Secretary-General. Prof. Donders, as President of the preceding Congress, held at Amsterdam in 1879, seconded the motion in a short speech, in which he paid a just tribute of praise to the admirable arrangements which had been made for the meeting of the Congress. The resolution was carried by acclamation.

Sir William Jenner then presented to the Prince of Wales a medal struck in commemoration of the meeting of the Congress, and resigned the chair to Sir James Paget, the President-elect.

The Prince of Wales cordially greeted the President, and in a short and admirable address expressed his interest in the meeting, and the confident anticipation he felt in the great international benefits which must accrue from the conferences of men of science from all countries, and he formally declared the Congress open.

Sir James Paget then delivered his inaugural address, which was a thoughtful, philosophic, and eloquent statement of the true aims and objects of an international gathering such as this Congress was, and he concluded with the following

peroration, which, for nobility of thought and beauty of expression, fully justifies Sir James's high reputation as an orator:—

"And then, let us always remind ourselves of the nobility of our calling. I dare to claim for it, that among all the sciences, ours, in the pursuit and use of truth, offers the most complete and constant union of those three qualities which have the greatest charm for pure and active minds—novelty, utility, and charity. These three, which are sometimes in so lamentable disunion, as in the attractions of novelty without either utility or charity, are in our researches so combined that, unless by force or wilful wrong, they hardly can be put asunder. And each of them is admirable in its kind. For in every search for truth we can not only exercise curiosity, and have the delight—the really elemental happiness—of watching the unveiling of a mystery, but, on the way to truth, if we look well round us, we shall see that we are passing among wonders more than the eye or mind can fully apprehend. And as one of the perfections of nature is, that, in all her works, wonder is harmonized with utility, so is it with our science. In every truth attained there is utility either at hand or among the certainties of the future. And this utility is not selfish: it is not in any degree correlative with money-making; it may generally be estimated in the welfare of others better than in our own. Some of us may, indeed, make money and grow rich; but many of those that minister even to the follies and vices of mankind can make much more money than we. In all things costly and vainglorious they would far surpass us if we would compete with them. We had better not compete where wealth is the highest evidence of success; we can compete with the world in the nobler ambition of being counted among the learned and the good who strive to make the future better and happier than the past. And to this we shall attain if we will remind ourselves that, as in every pursuit of knowledge there is the charm of novelty, and in every attainment of truth utility, so in every use of it there may be charity. I do not mean only the charity which is in hospitals or in the service of the poor, great as is the privilege of our calling in that we may be its chief ministers; but that wider charity which is practised in a constant sympathy and gentleness, in patience and self-devotion. And it is surely fair to hold that, as in every search for knowledge we may strengthen our intellectual power, so in every practical employment of it we may, if we will, improve our moral nature; we may obey the whole law of Christian love, we may illustrate the highest induction of scientific philanthropy.

"Let us, then, resolve to devote ourselves to the promotion of the whole science, art, and charity of medicine. Let this resolve be to us a vow of brotherhood; and may God help us in our work."

The first general meeting then adjourned.

In the afternoon the Sections organized as follows: Section I. Anatomy, President, Prof. Flower. Section II. Physiology, President, Dr. Michael Foster, of Cambridge. Section III. Pathology and Morbid Anatomy, President, Dr. Samuel Wilks. Section IV. Medicine, President, Sir William Gull. Sub-section. Diseases of the Throat, Chairman, Dr. George Johnson. Section V. Surgery, President, Mr. John Eric Erichsen. Section VI. Obstetric Medicine and Surgery, President, Dr. McClintock, of Dublin. Section VII. Diseases of Children, President, Dr. Charles West. Section VIII. Mental Diseases, President, Dr. Lockhart Robinson. Section IX. Ophthalmology, President, Mr. Wm. Bowman. Section X. Diseases of the Ear, President, William B. Dalby, Esq. Section XI. Diseases of the Skin, President, Mr. Erasmus Wilson. Section XII. Diseases of the Teeth, President, Mr. Edwin Saunders. Section XIII. State Medicine, President, Mr. John Simon. Section XIV. Military Surgery and Medicine, President, Surgeon-General Professor Thomas Longmore. Section

XV. Materia Medica and Pharmacology, President, Prof. T. R. Fraser, of Edinburgh. In many of the Sections, the President delivered introductory addresses.

Subsequently, the Congress again met in general session to listen to an address on the Value of Pathological Experiment, by Professor Virchow.

In the evening a conversazione was given by the English members to the foreign members and ladies, at the South Kensington Museum, which was graced by the presence of their Royal Highness the Prince of Wales, the Crown Prince of Russia, and his eldest son Prince Henry. The beautiful courts and picture galleries of the Museum with their exquisite art treasures, combined with the brilliant illumination and the presence of the ladies, constituted a scene of rare beauty which will long be remembered by all who participated in it.

On Thursday, August 4th, the Congress met in Sections in the morning, and in the afternoon in general session, to listen to an address which was written for the occasion, and finished just before his untimely death, by the late Prof. Maurice Raynaud, of Paris, on "Le Scepticisme en Médecine, au temps passé et au temps présent," which was read by his friend Dr. Féréol. In the evening a banquet was given to a certain number of the members of the Congress by the Lord Mayor of London, at the Mansion House, at which were present the following representatives of the United States: Drs. Fordyce Baker, H. J. Bigelow, J. S. Billings, V. T. Bowditch, J. Solis Cohen, R. B. Cole, Austin Flint, Wm. Goodell, S. W. Gross, I. Minis Hays, A. Jacobi, M. A. Pallen, L. A. Sayre, and Wm. Thomson.

On Friday, August 5th, the sections again met in the morning, and in the afternoon the Congress met in general session to listen to an address on "Our Medical Literature," by Dr. J. S. Billings, of Washington, U. S. Dr. Billings considered his theme in reference to the growth of medical literature all over the world, and gave interesting statistics in regard to subjects written upon and the nationalities of authors. He then ably discussed the character and value of our literature and presented some valuable reflections on the making of it and on its utilization. Dr. Billings's address was often witty, and was very enthusiastically received, and the thanks of the Congress were tendered to him for it, by Sir James Paget, in most complimentary terms. In the evening a conversazione at the Guildhall was given to the members of the Congress and their ladies, by the Lord Mayor and corporation of the city of London.

On Saturday, August 6th, the Sections met in the morning, and in the afternoon garden parties were given by Sir Joseph Hooker, at Kew, by Mr. and Mrs. Spencer Wells at Golder's Hill, Hampstead, and by Mr. and Mrs. Saunders, at Fairlawn, Wimbledon. Excursions were also made to Folkestone, to witness the unveiling of the Harvey memorial statue; after which ceremony the Mayor and corporation of Folkestone entertained the visitors at a banquet in the Town Hall. At the invitation of Dr. Langdon Down, a number of the members visited Hampton Court and then proceeded by river to Hampton Wick, where they were entertained by Dr. Down at a garden party at his residence, Normansfield. Excursions were also made to the Croydon Sewage Farm, and to Hanwell Lunatic Asylum. In the evening a party of the members were entertained at dinner by the "United Hospitals Club," at the "Star and Garter," Richmond Hill, Mr. Thomas Bryant, of Guy's Hospital, in the chair. A reception at his residence, Carlton House, was tendered to the foreign members of the Congress, by His Excellency Earl Granville, K. G., Her Majesty's Minister for Foreign Affairs.

On Sunday, August 7th, a full choral service was held in Westminster Abbey, and the sermon was preached before the Congress by the Rev. Canon Barry; and in the afternoon at St. Paul's, with the sermon by the Rev. Canon Liddon.

Visits were also made by special parties to Bethlehem Convalescent Hospital, Witley, Surrey, to the Margate Hospital, where the new wing of the Royal Sea-bathing Infirmary for Scrofulous Disease was inspected, and afterwards the party were entertained at lunch by Mr. Erasmus Wilson. In the afternoon Sir Trevor Lawrence, Bart., M. P., entertained at luncheon a party at Burford Lodge, his residence in Surrey; and Mr. Lennox Browne entertained a number of the members of the Section of Diseases of the Throat at a very handsome dinner, at the "Star and Garter," Richmond Hill.

On Monday, August 8th, the morning was devoted to sectional meetings, and in the afternoon a general meeting was held, at which Prof. Volkmann, of Halle, delivered an address, entitled "Ueber Moderne Chirurgie," and Professor Pasteur communicated the results of his most recent investigations in vaccination in relation to the prevention of chicken cholera and splenic fever.

For the entertainment of the members a visit was made to the Docks under the guidance and hospitality of Sir George Chambers; Baroness Burdett-Coutts gave a beautiful garden party at her residence, Holly Lodge, Highgate; the Society of Apothecaries, a dinner at their hall in Blackfriars; and the Royal College of Surgeons, a conversazione; and at the same time an opportunity was afforded the members to view the Hunterian Museum.

On Tuesday, August 9th, the Sections met in the morning, and at 2 o'clock the sixth and concluding general meeting was held, at which Prof. Huxley delivered an address on "The Connection of the Biological Sciences with Medicine."

Mr. William Mac Cormac, the Hon. Secretary-General, then presented his report, in which he stated that 3210 persons had registered as members of the Congress; that 119 meetings of Sections had taken place, which had sat in the aggregate for 293 hours, or 12 days and nights. The attendance at the sectional meetings had been very large, and 464 written and 360 spoken communications had been made, and in their discussion great interest had been shown. Many additional hours had been spent in visiting hospitals and museums, where there had been demonstrations of various diseases. Some hours had also been spent in listening to the addresses in the general meetings and at the museum of the Congress, which had been crowded with visitors.

The President, Sir James Paget, announced that resolutions had been received from the Sections of Physiology and Ophthalmology, and that they had been very carefully considered in their respective Sections, and it was now judged best that there should now be no discussion on them; that they would be submitted to the meeting, which would adopt them or not, and if any member dissented from the action of the Congress he could have his vote recorded.

The resolution from the section of physiology was, "That this Congress records its conviction that experiments on living animals have proved of the utmost value to medicine in the past, and are indispensable for its future progress. That, accordingly, whilst strongly deprecating the infliction of unnecessary pain, it is our opinion that, alike in the interests of animals and of men, it is not desirable to restrict competent persons in their experiments." The resolution was received with great applause, and was carried without a single dissentient voice.

The president then explained that the Ophthalmological Section had prepared a series of tests which it recommended for persons working signals on land and sea, and that its views were about to be drawn up in due form by a committee. In the mean while the Section recommended that its action should be adopted as the action of the Congress in order that the recommendations might be forwarded by the Secretary-General to the President of the Board of Trade, the First Lord of the Admiralty, and the Secretary of State for Foreign Affairs, with an expression of the desire of the Congress that they should be favourably entertained, and, if

approved, be recommended for adoption by foreign governments. The resolution was unanimously adopted.

On motion of Mr. Bowman, seconded by Mr. Lister, medals of honour were presented to the President of the preceding Congress, Prof. Donders, of Utrecht, and to the Secretary-General, Dr. George, of Amsterdam, to Madame Raynaud, as a souvenir of her husband, whose untimely death rendered necessary the reading of his address by his friend Dr. Féréol, and to the readers of the general addresses, Drs. Féréol, of Paris; Billings, of Washington; Pasteur, of Paris, Volkmann, of Halle; and to Prof. Huxley, of London.

Prof. Von Langenbeck moved that the executive committee should convey the thanks of the Congress to those non-members whose hospitality the Congress had received. Adopted.

The President moved that the decision as to the next place of meeting be left to the Executive Committee. Adopted.

Dr. Billings, of Washington, moved that the best thanks of the Congress be tendered to Mr. Mac Cormac, the Hon. Secretary-General, for the able and painstaking manner in which he had successfully discharged the multifarious duties of his laborious office. Adopted.

Prof. Charcot, of Paris, moved a vote of thanks to Sir James Paget, the President, for his services as presiding officer, which was carried with great enthusiasm, the whole meeting rising and cheering.

Sir James Paget said he had now the privilege of returning his thanks for the second time; at first for selecting him as as their president, and now for saying that he had done the work fairly well. If he had worked hard with them all, every day of work had been a day of pleasure, for he had been associated with so many whom he much desired to meet, and had laid the foundation of friendships to make old age happy. (Cheers.) In so vast a work there must have been some lapses. (Cries of "No, no.") If there had, he begged to apologize. The meeting had been one of a rare amount of work, and the time occupied by the sittings of the Sections had been more than that spent in the meetings of the whole thirteen considerable London Medical Societies in a year. It was now time to say good-bye. It was not possible that all the work which they had done should be without good fruit, that all the mental force they had put forth should be lost. He would then say good-bye, not from himself to them, or from them to him, but to all good-bye, in its full meaning, namely, good be with them all in the future, especially that good which comes from doing good. (Cheers.)

The Congress then adjourned *sine die*. After the adjournment a large number of the members went to the Crystal Palace where they informally dined together. Afterward the fountains played, and there was a beautiful display of fireworks. The closing piece consisted of three colossal portraits of Charcot, Paget, and Langenbeck, which, as they became recognizable, were received with the utmost enthusiasm.

I. M. H.

Scarlatina in Charleston, South Carolina.

Dr. F. Peyre Porcher, under date of July 20th, writes: "In our last communication we stated, with regard to scarlet fever (which has very much abated), that at the commencement of the epidemic there had been an extraordinary exemption of the coloured race. This was true. The ward physicians and others note that subsequently the disease began to show itself more frequently in negroes, and some deaths have been reported among them.

"It seems to us that, having passed through any epidemic, a physician should have more precise opinions regarding the disease, and his practice should be more fixed and precise with the fresh recollection of his recent experience.

Without pretending to a very extensive one, we have come to these conclusions: Scarlet, like yellow, fever should be treated early; efforts to control the fever should be made *from the beginning*, and the temperature, if possible, not be allowed to remain over 103° for any length of time. As in yellow fever continued high temperature and rapid combustion lead to black vomit and to uræmic poisoning, so in scarlet fever they intensify the tendency to and the grade of the throat affection as well as the congestion of the kidneys. To reduce the temperature and maintain it at a safe standard, the best means are naturally, after a mild laxative, the *early* use of alkaline fever-mixtures containing potash, spiritus mindereri, etc., the frequent application of ice-water to the head and hands, two or three warm baths daily, and greasing the entire surface of the body. Local applications to the throat internally of Labarraque's solution, chlorate of potash, tincture of myrrh, etc., should also be used. This, however, is not the place to go into detail on such matters, but the above we believe to be *essential* for success in the treatment of the disease. We would decidedly favour the trial of prophylactics in all children exposed to this disease and to diphtheria."

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Health of New York.—The city's mortality has been somewhat smaller during the past month than in the preceding one. There were, however, 4378 deaths in July, against 3487 in July, 1880. Intense heat prevailed on August 5th, 6th, and 7th, the thermometer registering about 90° in the shade. On these three days 60 cases of insolation were reported. On July 11, 14, 22, and 26 there were 5, 4, 6, and 5 cases of sunstroke, respectively. Two cases of yellow fever have reached the port from Havana during the month. These are the only cases of yellow fever which have been received at quarantine this year. Last year patients sick with that disease arrived at quarantine almost daily from June till October. The special medical corps of the Health Board still continue their work in the tenement districts. Their visits cover the whole of Manhattan Island, this year, for the first time. On August 2d the Board of Health ordered the lodging-house at 61 Thompson St. closed for the reason that 22 undoubted cases of typhus fever were removed from that house between April 8th and July 21st, and that it would probably have become a focus for the disease with the advent of cold weather and the invading army of tramps.

Typhus fever has steadily abated during July. In the sixteenth week of its prevalence (ending July 2d) there were 11 new cases; in the seventeenth week, 10; in the eighteenth week, 24; in the nineteenth week, 19; in the twentieth week (ending July 30), 10 cases. There were, thus, 74 cases in July, against 101 in June and 124 in May. Variola has also diminished to an encouraging extent. While 187 new cases of this disease were reported in June, and 210 in May, only 99 were discovered in July. Measles has also notably diminished, only 231 cases being reported for July, against 430 in June, and 587 in May. Scarlatina has increased from 435 in June, to 575 in July; and diphtheria from 434 in June, to 521 in July.

Dr. Nagle, Registrar of Vital Statistics, has recently published New York's mortality report for the six months ending June 30th. From his report it appears that the deaths from zymotic diseases have increased 40 per cent. during that time. The death-rate from diphtheria is twice as great, and that from scarlet fever five times as great as in the preceding period of six months. The mortality for this year is further shown to be 20 per cent. greater than for a corresponding period in 1880, the actual excess in deaths being more than 3000. The death-rate during the last six months has been about 30 per 1000, while it varied between 24 and 26 per 1000 for the corresponding six months of 1880.

Appointment at the New York University.—Dr. F. R. S. Drake has been appointed Clinical Professor of Practical Medicine in the University Medical College of New York.

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New York Physicians at the International Medical Congress.—New York was well represented at the International Medical Congress recently held at London, by many of her eminent physicians, among whom may be mentioned Drs. Barker, Flint, Sayre, Mundé, Sands, Arnold, Bosworth, Purdy, Satterthwaite, Schaffer, and Taylor.

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Regulation that does not Regulate.—The Censors of the New York County Medical Society complain that their efforts for the suppression of unqualified and irregular medical practitioners have not been properly seconded by the grand jury, which body recently dismissed a case in which the law regulating the practice of medicine had been manifestly violated.

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Meeting of American Ophthalmological Society.—The American Ophthalmological Society held its annual meeting at Newport, R. I., on July 27th and 28th, 1881. The following officers were selected for the ensuing year: President, Dr. H. D. Noyes, of New York; Vice-President, Dr. W. F. Norris, of Philadelphia; Secretary and Treasurer, Dr. R. H. Derby, of New York; Committee on Publication, Drs. D. B. St. John Roosa, R. H. Derby, and E. G. Loring; Corresponding Secretary, Dr. J. S. Prout, of Brooklyn.

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Organization of the Barren County Medical Society, Kentucky.—The Barren County Medical Society, at Temple Hill, Kentucky, was organized June 20, 1881. Officers as follows: R. H. Grinstead, President, Glasgow; J. J. Jepson, Vice-President, Glasgow; Geo. S. Leach, Secretary, Glasgow; C. T. Grinstead, Corresponding Secretary, Temple Hill; S. T. Batts, Treasurer, Dry Fork.

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Meeting of the American Otological Society.—The American Otological Society held its fourteenth annual meeting at Newport, R. I., July 26th, 1881, after the transaction of the ordinary business, and listening to papers by Dr. Theobald, of Baltimore; Roosa, of New York; Orne Green, of Boston; Burnett, of Phila.; Kipp, of Newark; Blake, of Boston; Buck, of New York, and others, the Society adjourned to meet next year at Lake George, on the day previous to the meeting of the Ophthalmological Society.

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Ice for the Sick Poor in New York.—The Earle Guild has inaugurated a novel charity, the object of which is the supplying of the sick poor with ice during the heated term. The circumstances and condition of each applicant for ice will be investigated before relief is extended, unless such applicant be provided with a voucher from a reputable physician. The Guild will issue tickets to families in distress for a two, three, or four weeks' supply of ice, which will be delivered daily anywhere in the city. On Saturday a double quantity will be delivered. Books containing ten orders, each one of which is good for a two weeks' supply, will be sold to the sick, who are able to pay a small sum for relief, at the rate of $5.00.

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New Summer Cottage Charity.—The Sisters of St. John Baptist, of No. 233 E. 17th Street, New York, propose to erect a house, at some convenient place on Long Island, which will be known as St. Anna's Cottage. The house will be designed to give the benefit of fresh air and recreation to mothers of families,

with their children, whose means are too limited to admit of their procuring these essentials to health during the hot weather elsewhere. It is proposed that the sojourn of the women and children shall extend from three days to a week, so that large numbers can be successively entertained. This charity is intended for the special benefit of the Germans living on the east side, between the East River and Avenue A.

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Seaside Sanitaria.—The Seaside Sanitarium, at Rockaway Beach, which was mentioned in the July number of the "Medical News and Abstract," has been in successful operation for nearly two months, and has already afforded entertainment to several thousand sick children from the tenement districts. The managers have this year set apart a portion of one building for the use of respectable working girls and women who cannot pay the price demanded at ordinary seaside resorts. The price of a week's board is $3.50, including the fare to and from the Sanitarium.

The Seaside Nursery of St. John's Guild, N. Y., situated at Cedar Grove, Staten Island, and referred to in the May number of the "Medical News and Abstract," was formally opened on July 28th. It is located on Prince's Bay, below the Narrows, and commands a fine view of the lower Bay. Is is a two story, wooden structure, with piazzas along the entire front of both stories. The house is very well ventilated. The main building is 25 by 60 feet, and there are to be two wings, each 25 by 95 feet. Only one of these is now completed. Fifty children and their mothers can now be accommodated, but three times as many will find room when the second wing is completed.

The grounds of the Guild comprise ten acres, including a cedar grove. The bay frontage is 600 feet. Sick children, whose complaints are too serious to be relieved by an excursion on the Floating Hospital of the Guild, are transferred to the Seaside Nursery. The Floating Hospital takes on an average over a thousand mothers and children on an excursion thrice weekly.

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Working of the Sick Children's Mission, New York.—The number of applicants for medical aid for sick children at the office of the Sick Children's Mission of New York has been unusually large this season. This institution has been in operation for twelve years, and has been the means of considerably diminishing infantile mortality in the city. Twelve visiting physicians are employed by the Mission; and six druggists, in convenient localities, furnish medicines upon these physicians' orders. The physicians are also authorized to give orders on the Mission for any kind of nourishment needed by the sick children, if the parents are too poor to provide it.

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Country Week for Sick Children.—The Rev. Willard Parsons has arranged with the farmers in various towns in the Naugatuck Valley, Conn., to board a certain number of poor children from New York city, for a period of two weeks free of charge. The object of this arrangement is the removal of the children from the city during the season of most intense summer heat. Forty children were sent to Woodbury, Conn., in pursuance of this plan, on July 23d, and other detachments were sent to adjoining towns. The two weeks' sojourn in pure country air has, in past years, exerted a uniformly beneficial effect upon the city children.

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To Readers and Correspondents.—The Editor will be happy to receive early intelligence of local events of general medical interest, or which it is desirable to bring to the notice of the profession. Local papers containing reports or news items should be marked.

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